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Governance of complex early childhood education and care systems

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GOVERNANCE OF COMPLEX EARLY CHILDHOOD EDUCATION AND CARE SYSTEMS

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Promising governance strategies for effective implementation of educational equity policy in early childhood

DISSERTATION

To obtain the degree of Doctor at Maastricht University,
on the authority of the Rector Magnificus,
Prof. dr. Pamela Habibovic
in accordance with the Board of Deans,
to be defended in public on
Wednesday, 27 March 2024 at 13:00 hours

by

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Better is good

- Barack Obama -

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1 INTRODUCTION

1.1 INTRODUCTION

For many years, educational equity policies that aim at making high quality early education and care available for all children, are considered key in combatting social inequalities (Nurse & Melhuish, 2021; OECD, 2021; Rözer & Van der Werfhorst, 2019). Promoting educational equity achieves much more than just improving equal opportunities for children. It also leads to an improvement in the general social situation of citizens and thus an overall improvement in broader society, for example, because preventing a greater need of individuals for state support (Melhuish, 2014). For all these reasons, improving equity in education is a high priority in many countries (OECD, 2021), and many countries, therefore, invest in educational equity, sometimes massively. However, raising the budget to support disadvantaged schools and children in itself does not automatically lead to a decrease of educational inequalities, because it matters a lot what the budget is used for. Indeed, not all measures are equally effective (Rözer & Van der Werfhorst, 2019). However, there is wide consensus that in particular investing in measures targeting early childhood to increase equity will pay off (OECD, 2012). A number of cost-benefit analyses have demonstrated that targeted investments in Early Childhood Education and Care (ECEC) to increase access and uptake pay off in high economic returns for society (e.g., Heckman et al., 2010; Reynolds et al., 2011; Van Huizen et al., 2019).

Although most countries experience some form of inequality, studies show that the level of inequality differs between countries (OECD, 2019; Rözer & Van der Werfhorst, 2017). In addition, studies show that achievement gaps already exist in early childhood (Passaretta & Skopek, 2018). Inequalities that already exist at an early age are persistent and often increase during primary and secondary education (Passaretta & Skopek, 2018). A significant part of later gaps in achievement by the family's socioeconomic status (SES) is explained by inequalities that accrued in the very early years of life (Passaretta & Skopek, 2018; Passaretta et al., 2022). To prevent educational inequality in the pre-school years and later in life it is important to intervene early and engage in supportive educational programs before children enter primary education, as with ECEC programs.

1.2 ECEC AS PART OF EDUCATIONAL EQUITY POLICY

Numerous studies have shown that ECEC can have a positive effect on children's cognitive and social-emotional development, and can reduce the early emerging gaps between children from different social and ethnic-cultural backgrounds. Especially children from underprivileged families, that is, families with less financial resources, lower educated parents and/or parents with a recent migration background, benefit from ECEC (Melhuish et al., 2015; National Research Council and Institute of Medicine, 2000; Shonkoff, 2011; Zaslow et al., 2010). ECEC improves school readiness, increases children's performance in school, and positively affects a wide range of relevant outcomes in adult life (Barnett, 2011; Blau, 2021; Duncan & Magnusson, 2013; Elango et al., 2015; Gormley et al., 2005; Reynolds et al.,

2011). Not only the supply, but also the quality of ECEC programs is crucial for children's development (Burchinal et al., 2010; Elango et al., 2015; Duncan et al., 2022; OECD, 2017; Van Huizen et al., 2018), where high quality includes several components.

The definition of ECEC quality commonly distinguishes between two main components: *structural quality* and *process quality* (Howes et al., 2008; Sabol et al., 2013; Slot et al, 2015). *Structural quality* of ECEC refers to the more stable characteristics of the provision offered to children. It refers to characteristics of the group (e.g., size and children-to-teacher ratio), the teachers (e.g., required pre-service training level), the space and furnishing of the classroom, and the availability of play and instruction materials that are regarded conditional for good emotional and educational process quality, but not direct determinants of child outcomes (Dennis & O'Connor, 2013, Slot et al., 2015; Zaslow et al., 2010). *Process quality* signifies the quality of the day-to-day experiences of children, the activities they engage in and the interactions they have with teachers and other children. These experiences, activities and interactions are thought to directly affect children's development and learning. Process quality can be further divided into emotional and educational process quality. Emotional process quality refers to how children's emotional needs are handled and whether teachers are responsive to and supportive of children's emotional needs. In addition, emotional process quality includes how children's social-emotional skills are promoted, for example, by recognizing and acknowledging their emotions, supporting their self-regulation skills and conflict-resolution, following children's initiatives, and showing empathy and respect for children's perspectives, thereby creating an emotionally positive and supportive climate (Slot et al., 2015). Educational process quality refers to the implementation of play-based pedagogies along with relevant, developmentally appropriate curriculum components (Duncan et al., 2022; Melhuish et al., 2015).

Awareness is increasing that in addition to the global structural and process quality of ECEC, providing a planned, age-appropriate program of well-designed educational activities to support children's development and learning in specific subject domains is important as well (Bleses et al., 2021; Chambers et al., 2016; Duncan et al., 2022). These domains concern in particular emergent (academic) language, literacy and math skills and also learning-related executive function skills. While some consider the use of supplementary domain-specific curricula within a global high quality whole child ECEC program a separate quality component, namely 'curriculum quality', others regard adding specific curricular foci to a program as an extension of educational process quality and emphasize that the instructional approach should involve child-following, active play-based learning and scaffolding feedback (cf. Burchinal, 2018).

In addition to what happens in the classroom, a broader quality concept for ECEC includes two other aspects that may contribute to children's development and learning: collaboration with parents to support them in daily child-rearing tasks and to increase their involvement in ECEC; and avoiding or, at least, smoothing transitions within the ECEC

system and between ECEC and primary school. Evidence indicates that establishing strong partnerships with families, encouraging parents' active participation, and providing resources and support to enhance learning experiences at home, parallel to and in coordination with the ECEC program, adds to the impact of ECEC on children's development (for meta-analytical reviews, see Blok et al., 2005; Grindal et al., 2016; Joo et al., 2020; for a single randomized-controlled study, see Sheridan et al., 2011). In addition, evidence is emerging that avoiding abrupt transitions within ECEC and from ECEC to primary school, and mitigating the potential negative effects of transitions, is to be regarded as a quality aspect at the level of local ECEC system (Shuey et al., 2019). Research indicates that transitions can negatively impact children's well-being, social-emotional adaptation and learning (Ansari & Pianta, 2018; Balduzzi et al., 2019; McDermott et al., 2016; Vitiello et al., 2022). Moreover, the discontinuity of programs upon the transition from pre-kindergarten to kindergarten and from kindergarten to primary school, has also been found to be related to the sometimes observed fading of ECEC effects in middle to long term (Jenkins et al., 2018; Lee & Loeb, 1995; Stipek et al., 2017). Establishing continuity of emotional and educational process quality and providing a continuous, age-appropriate curriculum across transitions not only mitigates the negative effects of transitions, but also results in a coherent, cumulative program of several years. As current evidence seems to indicate: a longer duration of ECEC is more important for impact on children than a higher intensity in terms of hours per week (Felfe & Zierow, 2018; Love et al., 2005; Sammons et al., 2004).

1.3 GOVERNANCE OF ECEC AND EDUCATION

In most countries, ECEC is provided in a split, privatized, marketized and decentralized system, with separate provision for children under 3 or 4 years of age and for children from that age to age 6 or 7, when formal education starts (OECD, 2017). In split systems, like in the Netherlands, the central governance of ECEC for children up to 3 or 4 years of age is mostly carried out by the Ministry of Social Affairs. When children enter kindergarten, governance of ECEC is carried out by the Ministry of Education (Slot, 2018). In addition to split systems, childcare has been marketized in many countries to meet parental demand and as a means of raising the quality of ECEC through competition, resulting in hybrid childcare systems with a mix of public and private organizations, either for-profit or not-for-profit (Lloyd, 2020; Robinson, 2016; Van der Werf et al, 2021). Furthermore, in many countries, responsibility for ECEC has been decentralized from the national to the local government. In particular, the governance of education is increasingly decentralized, to enable schools to respond to local changes and demands (Burns & Köster, 2016). In decentralized systems, schools are granted autonomy in several domains, including curriculum, pedagogy and assessment, the organization of instruction, personnel management, and resource management (OECD, 2012). In particular decisions about organization of instruction are predominantly taken by schools, whereas schools take generally fewer decisions concerning personnel

management, planning and structure, and resource management, and decision patterns are more mixed (OECD, 2012). In conjunction with changing relations and interactions between actors in education and educational governance, decentralization implies an increase in the complexity of governance of education (Hooge, 2016; Theisens et al., 2016).

1.4 NETWORK GOVERNANCE

The past decades have witnessed a shift from traditional, centrally led *government* to new multilayered horizontal *governance* (Bryson et al., 2014; Provan & Kenis, 2008). More than in a centralized system, in which the central government makes decisions that are passed to the practice field in a hierarchical way, a horizontal governance system requires collaborative decision making from the partners involved, under auspices of the local government. Since the late 20th century, network governance has increasingly replaced hierarchical government and models of network governance have been developed in which stakeholders work together on the basis of their own expertise, across the boundaries of traditional sectors, enabling them to better address complex public challenges (Ansell & Gash, 2008; Page et al., 2015).

Many organizations operate in the hybrid field of education and social services in most countries today: public schools, publicly funded private schools, nonprofit and for-profit ECEC providers, public welfare organizations, social entrepreneurs, charities, religious organizations, committed "missionary" social and stakeholder initiatives, and more (Van der Werf et al., 2020, 2021). In a system with so many stakeholders, network governance can function as a strategy to increase coordination and to improve the performance of the system as a whole, with a new role for local governments (Clegg et al., 2016; Provan & Kenis, 2008). In the situation of educational equity, this applies in particular to local governments, because the national policy is mostly decentralized to local government.

Several studies have been conducted on the conditions under which network governance functions most effectively and can deliver the best possible results. The key conditions have been incorporated into different frameworks (Ansell & Gash, 2008; Bryson et al., 2015; Emerson & Nabatchi, 2015; Provan & Kenis, 2008), with aspects that separately and in conjunction contribute to collaborative performance. Some of the most influential frameworks to evaluate collaborative performance incorporate as key aspects the starting conditions, institutional design, collaborative process, and facilitative leadership of networks (Ansell & Gash, 2008; Bryson et al., 2015; Douglas et al., 2020; Emerson & Nabatchi, 2015; Turrini et al., 2010). In this dissertation we used an integrated model developed by Douglas et al. (2020), which identifies the basic conditions that shape achievement of collaborative performance, based on Ansell & Gash (2008) and Emerson & Nabatchi (2015).

1.5 ECEC AND ECEC GOVERNANCE IN THE NETHERLANDS

Since the 1970s, the Netherlands has implemented active policies to prevent or reduce educational disadvantages. The focus of the policy was, and is, to improve the educational opportunities of underprivileged children: children from families with less financial resources, lower educated parents, with a recent migration background or with a different home language than the school language. Between the 1970s and the year 2000, schools and areas with a higher number of potentially disadvantaged children received additional funding, with a high degree of autonomy in how those funds were spent. Since 2000, the focus of educational equity policy shifted explicitly to ECEC. Municipalities received funds for implementing educational equity policy in early childhood, which they had to redistribute to childcare providers and school boards to establish a continuous educational program for underprivileged children from age 2 to 6, based on collaboration between pre-primary ECEC and the kindergarten departments of primary schools. A major change in policy occurred in 2006 with the introduction of a new school funding system in primary education. From then on, funds for educational equity policy in the kindergarten period became part of primary schools' block grants. The budget for pre-primary education was still distributed by municipalities. In 2010, a last major legislative change was made. New legislation was implemented to harmonize the ECEC sector for under fours and municipal governments were given a major position in the implementation of the national educational equity policy in this period (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010).

The ECEC system in the Netherlands for children up to 4 years old is a split system, with a distinction between regular full-day childcare for children aged 0-4 with working parents and half-day pre-kindergarten education programs for the development stimulation of disadvantaged children between 2.5 and 4 years. An important development in the Dutch childcare policy concerned the privatization of childcare in 2005 (Childcare Act; Ministerie van Sociale Zaken en Werkgelegenheid, 2005). The main goals of the Childcare Act were expanding the supply of childcare and offering a wider range of services. Subsequently, the 2010 OKE Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010) further increased privatization and harmonization reforms. As a result of these policy developments, both regular childcare and targeted pre-kindergarten education are nowadays provided by private parties, both for-profit and not-for-profit.

Within the 2010 OKE Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010), municipal governments are given a more central role in the implementation of the national educational equity policy for under fours. Municipalities have to set up agreements with ECEC providers regarding the enrollment of children of underprivileged backgrounds, to distribute subsidies following these children, and to assure high quality provision for them. In addition, municipalities are required to set up agreements with local school boards for, among others, the implementation of the educational equity policy in primary schools. This includes

promoting continuity between pre-primary ECEC and kindergarten education. However, unlike regarding pre-primary ECEC, municipalities have no formal fiscal or administrative power regarding primary school kindergarten education. The Inspectorate regularly monitors the compliance of the municipalities with the legal requirements set by the national government in the OKE Act, and monitors to what extent municipalities carry out their coordinating role with regard to ECEC (Inspectie van het Onderwijs, 2010).

In order to guarantee the quality of childcare, despite decentralization and privatization of ECEC, the national government, namely the Ministry of Social Affairs and Employment, has established quality regulations. The standard quality framework specifies age-dependent equal structural quality, health and safety conditions, and defines equal development goals and global curriculum guidelines for full-day childcare, half-day childcare and half-day educational pre-kindergarten programs for underprivileged children. Additional requirements are imposed on educational pre-kindergarten programs, on top of the general requirements for childcare, by the Ministry of Education, Culture and Science to ensure high educational quality.

From age 4, Dutch children are eligible for full-time kindergarten, which is part of publicly funded primary education. Kindergarten is compulsory from age 5, but participation is already nearly 100% at age 4 (OECD, 2016). The decision-making power of Dutch school boards has grown during the period 1980-2010, due to decentralization and increased school autonomy (Hooge & Honingh, 2014). As such, the Dutch education system can be characterized as one of the most decentralized and complex systems in the world. School boards can decide whether, how and when they wish to encourage policies in schools, including equity policies (Waslander et al., 2016).

In 2006, lump-sum financing was introduced in primary education, meaning that school boards can distribute the budget to finance their schools, including the budget for increasing equality, as they consider appropriate. Schools with many disadvantaged children receive extra funding, and they can prioritize their budget to address educational disadvantages. For example, they can decide to assign extra staff to the kindergarten classes, but also to provide extra instructional materials in the upper grades. To what extent these funds benefit disadvantaged children is not transparent (CPB, 2017).

School boards have to offer early childhood education, but can make their autonomous choices in what their schools teach and how their schools do this. There are no set goals or requirements for ECEC in the schools or for education equity in early years. This is due to one of the key features of the Dutch education system, guaranteed under article 23 of the constitution, the freedom to found schools, to organize the teaching in schools and to determine the pedagogical principles on which they are based. ‘Freedom to organize teaching’ means that schools are free to determine – within legal boundaries - what is taught and how.

As for primary education, the Ministry of Education, Culture and Science sets global standards, which are monitored by the Inspectorate of Education (Inspectie van het

Onderwijs, 2010; Inspectie van het Onderwijs, 2017). Unlike the regulations that apply to pre-primary ECEC, educational standards are not specifically formulated for kindergarten education, but for the totality of primary education. The Inspectorate monitors compliance with these regulations, but, in line with the regulations, does not focus on kindergarten ECEC separately in its supervision.

To summarize, ECEC in the Netherlands is offered in a complex system and the governance of the system presents several challenges. In this dissertation we focus on the ECEC system for children from 2.5 to 6 years of age, including kindergarten which is part of primary education. To the best of our knowledge, this study is the first to examine if and how the structure and governance of the split, decentralized Dutch ECEC system affects the quality of ECEC and, in particular, the implementation of the national early childhood educational equity policy in ECEC.

1.6 RESEARCH QUESTIONS AND DESIGN

The central research question of this dissertation is:

'What are promising governance strategies to improve the implementation of early childhood equity policies in split, decentralized, and hybrid ECEC systems?'

To answer this question, we focus on the Dutch ECEC system until age 6. The Dutch ECEC system is highly suited to answer the general research question, because of the high level of decentralization of ECEC in the pre-primary period and especially the kindergarten period. Moreover, two different governance systems exist for children aged 0 to 6 years. The general research question is divided into a number of more specific sub-questions, which will be addressed in the consecutive chapters of this thesis:

1) What factors are associated with the quality of decentralized municipal ECEC governance?

2) Which systematic differences in quality exist in pre-primary ECEC between municipalities, and to what extent are those differences related to municipal ECEC governance?

3) Which systematic differences exist in the implementation of the national equity policy in kindergarten between classrooms, schools, school boards and municipalities in the Netherlands, and to what extent are those differences related to municipal ECEC governance?

4) What conditions for collaborative performance can be found in local network concerning ECEC, and which conditions for collaborative performance are related to ECEC quality of pre-primary and ECEC kindergartens?

Unique data are used to answer these questions, specifically data from a Dutch national cohort study of preschool children, including quality characteristics of the ECEC supply (Pre-COOL Consortium, 2012; Leseman & Veen, 2022) and data from the Dutch

Inspectorate of Education on the quality of ECEC policies. The Pre-COOL study was conducted to investigate the quality and developmental effects of ECEC, with a specific interest in the developmental effects on children from underprivileged families with a low socioeconomic status or migration background. The cohort started in 2010, when children were around age 2 and they were followed during ECEC and primary school, with a final assessment at age 12.

The inspection data include data on municipalities' ECEC policies and data on the quality of pre-primary ECEC centers and ECEC kindergartens as assessed by inspectors. The Inspectorate regularly monitors the compliance of municipalities with legal requirements set by the national government in the OKE Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010), and monitors to what extent the municipalities carry out their coordinating role with regard to ECEC. Supplementary, in 2020 the Inspectorate also surveyed municipalities on their governance of the network of partners involved in the implementation of the educational equity policy. In addition, in 2016 and 2019, the Inspectorate monitored a sample of pre-primary ECEC centers and ECEC kindergartens. In 2017 and 2020, the Inspectorate deployed a questionnaire to all municipalities in the Netherlands. In 2017, background information was requested on the coordinating role of the municipality. In 2020, information was requested on the network of municipalities regarding educational equity policy.

1.7 THIS DISSERTATION

This dissertation focuses on promising governance strategies for effective implementation of education equity policy in early childhood. It consists of four interrelated studies, addressing the governance of the split Dutch ECEC system for children from 0 to 6 years of age, with a specific focus on how the national early childhood educational equity policy is locally implemented. The separate studies address various aspects of municipal governance and collectively aim to provide a picture of promising and less promising governance systems for improving ECEC's quality in decentralized ECEC systems.

Chapter 2 reports a study into the differences in the quality of the local early childhood policies between Dutch municipalities, as assessed by independent school inspectors. The study examines the compliance with the legal requirements of the 37 largest municipalities in the Netherlands which received additional funding for ECEC in the period 2012-2016, and differences between municipalities in the quality of ECEC policies. In a multivariate regression analysis, the study described in Chapter 2 also tests the relative contributions to the quality of the local ECEC policies of three key instruments of Dutch municipalities: 1) coordination, 2) ECEC spending per child, and 3) performance agreements.

Chapter 3 describes a study on the relationships between local governance and the process quality of ECEC for 2- to 4-year-olds in the context of a privatized, marketized and decentralized ECEC system with both for-profit and not-for-profit providers. This study,

using multilevel modeling, examines the differences between municipalities in the observed emotional and educational process quality of ECEC centers nested within these municipalities and analyzes the associations of process quality with indicators of the municipalities' compliance with the national legal requirements, their coordination and quality assurance role, and their approach to collaborative network governance, at the municipal level.

Chapter 4 presents a study that examines how the current governance mode of Dutch primary education is related to the implementation of the early childhood educational equity policy in the kindergarten departments for 4 to 6-year-olds in primary schools, focusing on four indicators: the provision of academic activities, guided play, a positive affective climate and a culturally inclusive climate. The multilevel study decomposes the variance in the four indicators into components at the classroom, school, school board and municipality level, and examines the associations of the variance at the municipal level with indicators of the local governance approach.

The study described in Chapter 5 elaborates on our findings described in Chapters 3 and 4, focusing on collaborative performance as related to the quality of ECEC preschool centers and ECEC kindergartens, using theoretically informed research on collaborative and local network performance. In this study we examine the relationships between modes of local ECEC network governance and four aspects of quality: observed emotional and educational process quality, parental involvement, and continuity of pedagogy and curriculum across the transition from pre-primary ECEC to primary school kindergarten.

Finally, in Chapter 6, we reflect on the findings of this thesis and relate the findings to the wider scientific and social context. We conclude the discussion with recommendations to strengthen the educational governance of the complex, fragmented and decentralized ECEC system in the Netherlands in order to contribute to the optimal development of children from disadvantaged backgrounds.

2 MONEY OR MEASURES FOR LOCAL ECEC POLICY? A study on key elements of ECEC policy in Dutch municipalities

Author contribution: **L. van de Kuilen**: Conceptualization, Methodology, Formal analyses, Writing. **K. Coppens**: Conceptualization, Methodology, Review & editing. **I. de Wolf**: Methodology, Writing, Review & editing.

Abstract

High quality Early Childhood Education and Care (ECEC) is a powerful instrument to stimulate the cognitive and non-cognitive development of young children. Governments have various instruments to stimulate supply and quality of ECEC in their regions and countries through their ECEC policy; subsidies, performance agreements and coordination. In this study, we examined the relative contribution of these instruments to the quality of ECEC-policy in a decentralized ECEC-system in the Netherlands. We used the variation between municipalities in the quality of ECEC policy, independently assessed by inspectors. We studied the relative contribution of three instruments on the (assessed) quality of ECEC policy: (a) spending per child, (b) performance agreements, and (c) coordination. The results show that two factors are related to the quality of ECEC policy in a municipality: coordination and performance agreements. This suggests that focusing on goals, agreements, evaluation, and coordination of ECEC are effective instruments to improve the local ECEC policy. We did not find a relation between the spending per child (in euro's) and the quality of ECEC policies.

2.1 INTRODUCTION

Early childhood education and care (ECEC) is important for later cognitive and non-cognitive outcomes (Philips & Shonkoff, 2000; Shonkoff, 2011; Zaslow et al., 2010). These positive outcomes pay off in a high return, as shown in cost-benefit analyses (see e.g. Heckman et al, 2010). International research has also shown that ECEC's impact on better outcomes in subsequent stages of life depends highly on the quality of ECEC services (Burchinal et al., 2008; Burchinal et al., 2010; Elango et. al., 2015).

Governments all over the world set up ECEC systems, in order to provide ECEC to young children, especially children from a less advantaged background. Governments also aim at high quality ECEC, and search for policy measures to stimulate and guarantee quality of the ECEC centers. The establishment of a good, high quality, inclusive ECEC-system depends on effective governmental support (OECD, 2006), which includes financial support. On average, countries spend 0.8% of the collective GDP on ECEC, of which they spend 0.6% on pre-primary education. Countries differ in their spending and policies on ECEC, mainly related to the number of children taking part in ECEC and the formal requirements for ECEC, such as the educational level of teachers, and teacher-child ratios (OECD, 2017). Countries also differ in aims set, and regulations and organization of ECEC-policy (OECD, 2017). Part of these differences are related to different context factors, like the degree of female employment, level of child development and child poverty issues, and level of health and social welfare.

Countries can organize ECEC at a national, regional or local level. Most countries have decentralized ECEC, making ECEC policy and ECEC funding a task of local authorities (OECD, 2017). A positive consequence of decentralization has been the integration of early education and care services at the local level, along with greater sensitivity to local needs and circumstances (Mahon, 2008). On the other hand, experiences from the OECD (2017) suggest that there is also a disadvantage of the decentralization of ECEC: it increases regional differences in both access and in ECEC quality.

From a research perspective, differences between local authorities in ECEC policies and funding are interesting because it enables researchers to study regional differences in funding, policies and quality of ECEC. Previous research shows that regulation and policy can have a strong influence on preschool quality (Rao & Li, 2009) and that (state) funding demonstrate positive increments in preschool quality (Connors & Morris, 2015, Hatfield et al., 2015). Still little is known on the relation between the aspects of governing ECEC policies, e.g. through funding and coordination, which is the focus of this study. In this study the central research question is

What are key instruments of effective governance of ECEC policies?

We will answer this question by using the variation in ECEC coordination, funding and performance agreements between municipalities in the Netherlands.

2.2 ECEC CONTEXT IN THE NETHERLANDS

The most important goal of ECEC is to prevent disadvantaged children from the risk of educational disadvantage. ECEC in the Netherlands consists of a pre-primary ECEC and a kindergarten period. The pre-primary ECEC period is offered by for-profit and not-for-profit daycare centers to children aged 2.5 to 4. The Dutch government has set requirements such as teacher-child ratio, teacher training requirements and use of ECEC-curricula for pre-primary ECEC. Dutch municipalities are responsible for the supply and accessibility of pre-primary ECEC and for the quality of pre-primary ECEC centers. For that reason, the Dutch government allocates subsidies for pre-primary ECEC to Dutch municipalities. The subsidies are based on the amount of children from less advantaged backgrounds. Extra funding was given to municipalities with a high number of disadvantaged children (Akgünduz & Heijnen, 2018).

In 2010, legislation was implemented to harmonize the Dutch ECEC sector for children under 4 (OKE Act; Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). A single legal quality framework was introduced for all types of pre-primary ECEC. The harmonized quality framework specifies age-appropriate structural quality, health and safety conditions and defines overall curriculum guidelines for all ECEC facilities for children under age 4.

At the age of 4, children in the Netherlands are eligible for free of charge kindergarten, which is part of the government-funded primary school system, under the responsibility of school boards. The national government sets general quality standards for primary education and provides block grants to school boards, which are responsible for distributing to schools in their jurisdiction.

Municipal governments have been given a leading role in implementing the national educational equity policies, including ECEC. Municipalities have to make agreements with ECEC providers and primary schools boards on the enrolment of children from disadvantaged backgrounds, distribute subsidies for these children aged 2 to 4, ensure high-quality facilities for these children, implement policies to support parental involvement and promote continuity of pedagogy and curriculum between pre-primary ECEC centers and primary school kindergartens. The Inspectorate monitors the quality of ECEC policy at the municipal level. (Inspectie van het Onderwijs, 2010).

In 2012, the national government and the 37 largest municipalities made agreements on performance goals that needed to be accomplished in 2016, the so called ‘performance agreements’. These performance agreements set qualitative and quantitative targets for early childhood education with the aim of increasing quality and ensuring that as many children with language delays as possible could benefit from high-quality ECEC facilities. The performance agreements consisted of four parts, each with several subtopics, namely 1) Quantitative elements, 2) Municipal ECEC policies, 3) ECEC quality at locations, and 4) Results-oriented working and improving internal quality assurance. Some municipalities

formulated ambitions in addition to these four standard components. The municipalities got extra funding to achieve these goals. The agreements were monitored by the Inspectorate and evaluated by the national government after the agreement period. The evaluation showed that, overall, an improvement was noticeable across municipalities from 2011 onwards on the quality aspects at ECEC centers.

In the Netherlands, the supply and quality of ECEC facilities is a responsibility of municipalities, as in many other countries. There are various instruments municipalities can use to contribute high quality ECEC, like organizing facilities, municipal coordination, providing information and the stimulation of ECEC-networks. Studies show differences between municipalities in facilities and ECEC policies (Driessen, 2012; Inspectie van het Onderwijs, 2013; Mulder & Meijnen, 2013). This study focuses on governance instruments that are related to the quality of municipal ECEC policy, such as performance agreements, funding and coordination.

2.3 METHOD

2.3.1 Measures and procedures

This study focuses on the key factors for high quality ECEC-policy. We study the relation of three key factors with the quality of ECEC policy: ECEC funding, performance agreements and the local coordination of ECEC, using a unique dataset of the Dutch Inspectorate of Education, with data on ECEC policy and conditions at the level of municipalities in 2015/2016. Information on the quality of local ECEC-policy is in the dataset, as is information on elements of ECEC supply and ECEC policies in the municipalities in 2015/2016. This unique dataset on ECEC policy enables us to disentangle the key factors that contribute to high quality ECEC policy of the Dutch municipalities.

Our outcome measure is the quality of the local ECEC-policy, which is assessed by inspectors from the Dutch Inspectorate of Education. The expert-assessment is done with a standardized assessment instrument, based on the requirements for municipal ECEC policy, set by the Dutch governmennt in the OKE-Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). Inspectors were trained in using the assessment instrument. The assessment itself consisted of an interview with the local official, a study of the local policy documents on ECEC and a questionnaire on ECEC.

We used the assessment results of the ECEC policies in 2016, when the Inspectorate of Education assessed the quality of the ECEC policies in 68 municipalities: the 37 largest municipalities and a random sample of 31 small and medium municipalities. This assessment was a follow-up of a previous round of assessments in 2010-2011. In 2016, all 68 assessments were done in a standardized way using the same assessment instrument and trained inspectors (most of them already took part in the previous round of assessment in 2010-2011).

The quality of ECEC policy is assessed on a set of thirteen aspects, based on five *legal criteria* and eight *criteria* on *the coordination of local ECEC policies*. The five aspects based

on the legal criteria are used to check to what extent the local ECEC policy meets the requirements from the Dutch ECEC-law (OKE act; Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). These five *legal aspects* are: 1) Municipalities make agreements with municipal parties about which children are eligible for ECEC, 2) Municipalities ensure that the supply of ECEC is sufficient for all eligible children, and 3) Children and their parents are encouraged to participate in ECEC, 4) Municipalities ensure that children are able to transfer smoothly from pre-primary ECEC centers to primary school kindergarten, 5) Municipalities, childcare providers, and school boards, determine what results should be achieved with ECEC in terms of children's developmental results. The second group of aspects are eight aspects on *coordination of ECEC policy*. With these eight aspects, the Inspectorate checks to what extent the municipalities carry out their coordinating role on policy aspects that are important for ECEC quality. These aspects concern: 6) Parent involvement, 7) Use of an ECEC curriculum, and 8) Harmonization with extra care for children provided by the municipality, such as youth care, 9) Coordination of ECEC, 10) Evaluation and systematic improvement of the ECEC quality, 11) Agreements on the use of a quality assurance system in preschools, 12) Supervision of preschools and 13) The use of additional subsidy conditions (Inspectie van het Onderwijs, 2010). All thirteen aspects were scored on a scale of 1-4: 'inadequate' (1) 'moderate' (2), 'adequate' (3) and 'good' (4). Using factor analysis on these thirteen items, a variable was created for *quality of local ECEC policy*. The reliability of this variable is good (Cronbach's alpha = .870). This expert judgement on the quality of ECEC policy is the central element and key variable in this study.

In addition to the expert judgements of the quality of ECEC-policy, we use data on three other governance instruments of local ECEC: 1) Spending per child, 2) Performance agreements and 3) (self-assessment of) coordination. In 2016, the average ECEC funding for municipalities was over 4 million euros. The variation between the municipalities is substantial: the ECEC-funding varies from 25K to 49.4M euros. Since municipalities with more disadvantaged children also spend more on ECEC, we calculated *Spending per child* as measurement for funding of ECEC. The *performance agreements* were made with a subset of the 37 largest municipalities, resulting in a dummy variable for all municipalities: with or without performance agreements on ECEC. And the *coordination* was based on the answers of the municipalities on a questionnaire, issued by the Inspectorate on municipal coordination in 2016. In the questionnaire, we asked: 1) how many (defined) partners municipalities made agreements with, 2) on which (defined) components of expertise promotion municipalities made agreements with partners, 3) on which (defined) subjects they set additional subsidy conditions and 4) which (defined) agreements they evaluated. These components add up to the variable 'Coordination'. (Cronbach's alpha = .758). All municipalities answered all questions, which resulted in a response rate of 100%.

Our models estimated the relation between the expert judgement of ECEC policies with spending per child, performance agreements and coordination of the 68 municipalities.

In our explanatory models, we also used two control variables: the number of inhabitants as a measure of municipal size, and the proportion of disadvantaged children as a measure of size of the importance of ECEC in the municipality, with the importance of ECEC being higher in municipalities with more disadvantaged children than in municipalities with fewer disadvantaged children.

2.4 RESULTS

Table 2.1 shows the descriptives of our main variables, the four characteristics of ECEC in municipalities: the quality of local ECEC-policies, spending per child, performance agreements and coordination. The control variables are also included in the table. The table shows that the average quality of local ECEC policies is just above par (3.20). In addition, differences exist between municipalities. This is reflected in the wide range of Spending per child (€1,285.12 - €37,037.66), Municipality size (8,243 - 839,285 inhabitants), and Percentage of disadvantaged 2-4 year-olds (1.42 - 13.06%). In addition, coordination shows a wide range (9.0 - 53.0). Overall, larger municipalities with agreements were overrepresented (37 vs. 31).

Table 2.1

Descriptives of quality of local ECEC policies, the key factors and controls in Dutch municipalities (N=68)

	Total (n = 68)	
	Mean (sd)	**Min-max**
ECEC variables		
Performance agreements	1.54 (.50)	1.00 – 2.00
Quality local ECEC policies	3.20 (.40)	2.08 – 3.92
Spending per child (in €)	13,120.49 (8,542.78)	1,285.12 – 37,037.66
Coordination	33.7 (12.5)	9.0 – 53.0
Controls		
Inhabitants (#)	109,411 (141,137)	8,243 – 839,285
Disadvantaged 2-4 year-olds (%)	5.98 (2.52)	1.42 – 13.06

The main focus of this study is the relation between the quality of ECEC-policy with performance agreements, the spending per child, performance agreements, and the coordination of ECEC. Figure 2.1 shows the relationship between the quality of ECEC policy with spending per child and coordination in 68 municipalities. The separate scatterplots distinguish between municipalities with performance agreements and municipalities without performance agreements.

Figure 2.1

Scatterplots on Quality of ECEC Policies with Spending per Child and Coordination, for Municipalities With and Without Performance Agreements (N=68)

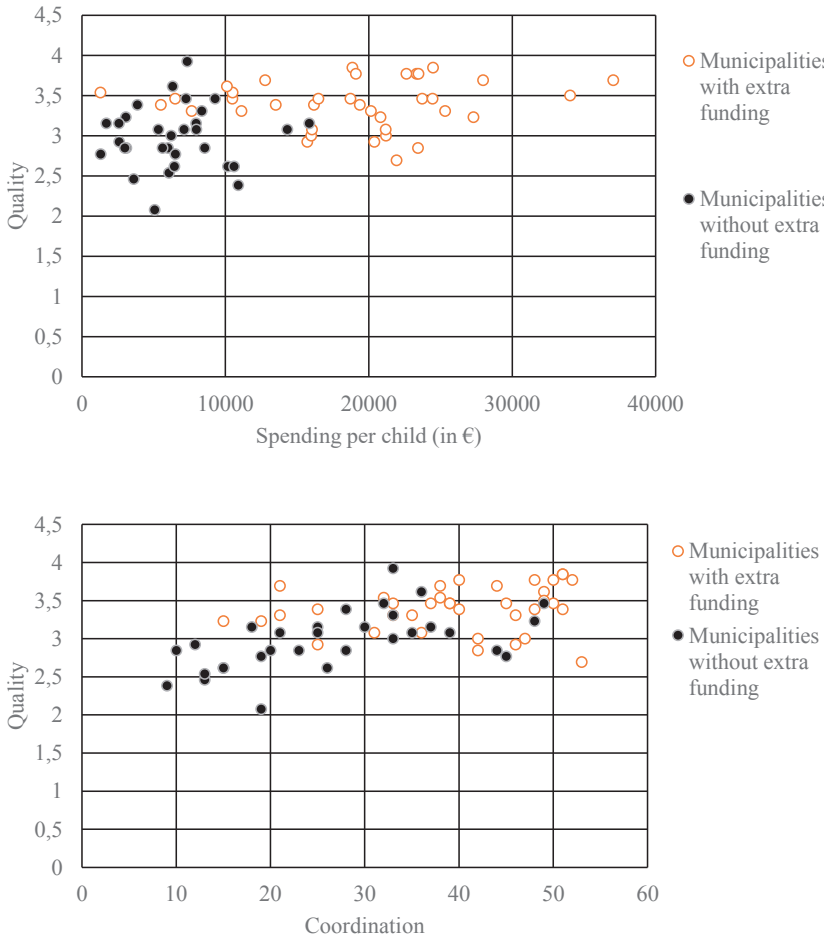

Figure 2.1 shows a positive relation between the quality of ECEC-policy with spending per child (top) and coordination (bottom). The dots in the plots distinguish between the (large) municipalities with performance agreements (○) and the (medium/small) municipalities without performance agreements (●). The scatterplots show two interesting findings. The first finding is that, on average, the quality of ECEC policies is higher in the large municipalities, i.e. the municipalities with performance agreements. The same holds for coordination and spending per child. All these elements are higher in the municipalities with

performance agreements. The second finding is that the figures indicate a positive relationship between the quality of ECEC policies with the other two factors: coordination and spending per child. This relation seems higher for the variable 'coordination' than for 'spending per child'.

Table 2.2

Correlations between ECEC-quality, Performance Agreements, Spending per Child and coordination (n = 68 municipalities)

	Performance agreements	**Spending per child**	**Coordination**
ECEC policy quality	.525***	.401***	.556***
Performance agreements		.707***	.507****
Spending per child			.400***

Note. *** $p < .001$.

The correlations between the quality of ECEC policy with the three main variables (coordination, spending per child and performance agreements) are presented in Table 2.2. This table shows a significant positive correlation between the quality of ECEC policy with ECEC performance agreements ($r = .525$, $p < .001$), coordination ($r = .556$, $p < .001$) and with the spending per child ($r = .401$, $p < .001$).

Table 2.3

Multivariate regression of Performance agreements, Spending per Child, Coordination, and Control Variables with Quality of ECEC policy as Dependent Variable

	Model 1			**Model 2**		
	B	**SE B**	**β**	**B**	**SE B**	**β**
Constant	3.130	.289		3.061	.306	
Performance agreements	.246	.117	.310*	.233	.121	.294~
Spending ECEC	.000	.000	.026	.000	.000	-.007
Coordination	.012	.004	.388***	.012	.004	.385***
Controls						
Perc. Disadvantaged children				.010	.016	.061
Inhabitants				.000	.000	.050

Note. ~ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. (Scale dependent variable: 2.08-3.92).

Because the variables are interrelated, we conducted a multiple regression analysis, in order to disentangle the correlation of the governance instruments on the quality of ECEC-policy quality separately (spending per child, performance agreements and ECEC-coordination). The results of these regression analyses are presented in Table 2.3. We estimated two models to predict the quality of ECEC policy. The first model is without

controls, just using performance agreements, spending per child and coordination as predictors of the quality of ECEC policy. The second model also included control variables (the number of inhabitants and the percentage of children of less advantaged background).

Table 2.3 shows that, in a multivariate analysis, coordination and performance indicators seem to be related to the quality of ECEC policies in Dutch municipalities. The strongest relation is with coordination. Coordination added significantly to the prediction of the quality of ECEC policy. The contribution of coordination is shown in the model without controls (ß = .388, $p < .001$) and in the model with the controls (ß = .385, $p < .001$). Performance agreements also added significantly to the model. The relation between the quality of ECEC policies and performance indicators is a positive and significant relation in the model without controls (ß = .310, $p < .050$). Including the controls, Table 3 shows that the performance indicators do contribute to the model (ß = .294), but only at a lower level of significance ($p < .10$). The final finding of Table 3 is that spending per child does not contribute to the quality of ECEC policies.

2.5 CONCLUSIONS AND DISCUSSION

Prior research has shown that ECEC's impact on better outcomes in later life depends highly on the quality of ECEC services. A sustainable ECEC system combines access to an equitable ECEC system, and quality of the ECEC services. In order to obtain a sustainable ECEC system, governments have to govern the system.

This study focused on municipal governance instruments to improve the quality of ECEC policy. We studied the contribution of three key instruments on the quality of ECEC policy in Dutch municipalities: coordination, spending per child and performance agreements. We find that all three elements are related to the quality of ECEC policy. The quality of the ECEC policy at the municipal level is higher when there is more coordination, when the spending per child is higher and in municipalities with performance agreements. However, three governance instruments are also related to each other, which makes it difficult to disentangle the instruments and get a better understanding of the underlying mechanisms. With a multivariable regression model, the governance instruments that are related to the quality of ECEC policies are (a) coordination and (b) performance agreements. Spending per child is no longer a relevant factor in the quality of ECEC policies in Dutch municipalities.

The findings in this chapter are in line with OECD research (2017), that has shown that governments in well-functioning systems, develop clear and consistent strategies for efficiently allocating resources, including investment in long-term planning and quality initiatives. This investment should be directed towards achieving high-quality pedagogical goals, rather than the simple creation of places. In setting out quality goals, countries face challenges such as: 1) building consensus on the goals; 2) aligning ECEC goals with the goals of other levels of education or other child-focused services; and 3) translating the goals into action. Both coordination of ECEC policies and performance agreements focus on these goals

and the actions that follow these goals. These instruments might be more effective than spending more euros per child.

This research suggests that governments can contribute to high quality ECEC policy, in particular by focusing on goals, performance agreements and coordination of ECEC in a municipality. Our findings suggest that targeted active ECEC policy seems to be most effective. This policy is aimed at alignment, coordination, monitoring and evaluation of agreements. The fact that the quality of ECEC policy is higher in municipalities with previous performance agreements than in other municipalities, suggests that performance agreements, in combination with monitoring and extra resources, can also be effective. The Inspectorate of Education could also focus on the goals and realization of the goals.

This study used a unique dataset, with an independent expert assessment of the quality of ECEC policies in 68 Dutch municipalities, by inspectors specialized in ECEC. To what extent the quality of ECEC policy is related to the quality of the ECEC centers and Kindergarten is beyond the scope of this study. This means that we do not know to what extent ECEC policy, subsidies, performance agreements and coordination are related to the quality of ECEC centers and Kindergarten. The other chapters in this dissertation study these relations.

3 INFLUENCE OF LOCAL POLICY ON THE QUALITY OF EARLY CHILDHOOD EDUCATION AND CARE IN THE NETHERLANDS

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Abstract

This study investigated the influence of local governance at the level of municipalities on the process quality of ECEC centers for 2 to 4-year-olds in the context of a privatized, marketized and decentralized ECEC system with both for-profit and not-for-profit providers. We studied the relation between local policy and ECEC-quality in a sample of 157 ECEC centers nested in 36 municipalities in the Netherlands, with a total of 299 quality observations at two measurement waves. The results showed significant differences between municipalities in the observed emotional and behavioral support and engaged support for learning of pre-primary ECEC centers: 23% of the variance in emotional and behavioral support and 14% of the variance in engaged support for learning could be attributed to the municipal level. Contrary to our expectations, differences between municipalities in ECEC quality were not related to formal indicators of compliance with national legal requirements nor with formal indicators of coordination and quality assurance. However, exploratory analyses provided indications that 'soft' horizontal governance of local networks of collaborating services was significantly associated with the engaged support for learning provided at pre-primary ECEC centers. The local network measurement included ECEC focusing on supporting children and families with lower financial resources, lower parental education or a migration background, stimulating them to participate in ECEC, and the coordination of professional development and quality monitoring. Therefore, a more pronounced focus in ECEC policy on encouraging and monitoring local network governance is recommendable in hybrid, decentralized systems.

3.1 INTRODUCTION

Worldwide, as part of broader trends in public administration, national systems of early childhood education and care (ECEC) have been increasingly privatized and marketized in the past decades, while the heavy weight of ECEC governance has shifted from the national to the local level (OECD, 2017). Traditional hierarchical governance and quality assurance have been supplemented or replaced by new forms of multilayered 'soft' and 'horizontal' governance, using global curriculum guidelines and encouragements to collaborate locally rather than 'hard' legal requirements and detailed prescriptions. Yet, still little is known about the impact of these forms of governance on the quality of ECEC. The present study, conducted in the Netherlands, attempted to fill this gap by studying the relationships between the ECEC policies of municipalities and the quality of education and care provided by pre-primary ECEC centers within these municipalities.

Ample research has shown that participating in high quality early childhood education and care can have important beneficial effects on children's cognitive and social-emotional outcomes later in life, especially regarding children from families with lower financial resources, lower parental education or a migration background (in this study: underprivileged families) (Melhuish et al., 2015; Philips & Shonkoff, 2000; Shonkoff, 2011; Zaslow et al., 2010). Investing in ECEC to increase access and uptake pays off in a high economic return for society, as has been found in a number of cost-benefit analyses (e.g., Heckman et al., 2010; Reynolds et al., 2011; Van Huizen et al., 2019). However, the beneficial impact on children and the rate of return on investment depend critically on the quality of ECEC (Burchinal et al.; 2010; Duncan et al., 2022; Elango et al., 2015; OECD, 2017; Van Huizen & Plantenga, 2018), particularly on the process quality (Howes et al., 2008; Phillips & Lowenstein, 2011; Sabol et al., 2013).

Process quality refers to the emotional and educational aspects of children's daily interactions in ECEC, and is thought to be a proximal determinant of child outcomes (Howes et al., 2008; Sabol et al., 2013; Slot et al., 2015). Structural quality is associated with process quality in that it can make higher process quality more likely, but does not guarantee it; it is possible (although less likely) for process quality to be high even when certain structural features are low (e.g., positive teacher-child interactions when the group size is large). (Dennis & O'Connor, 2013; Slot et al., 2015; Zaslow et al., 2010). These aspects are typically regulated at the national state level by statutory quality frameworks in most countries (Lokteff & Piercy, 2012; Rao & Li, 2009). Awareness is increasing that, in addition to this, process quality is also influenced by the organizational structure and culture of the ECEC center, the center's investment in professional development, orientation on the local community, and network relationships with other local social services for children and families, such as primary schools, health services and welfare services (Bayly et al., 2021; Moore, 2000; Van der Werf et al., 2020; Van der Werf et al., 2021). In particular the center's commitment to

supporting socioeconomically underprivileged communities and endorsement of an inclusive-emancipatory mission shared with local network partners, were found to distinguish ECEC centers of high quality from those of lower quality in two recent studies in the Netherlands (Van der Werf et al., 2020; Van der Werf et al., 2021) and one in the USA (Bayly et al., 2021), pointing to policy mechanisms at the local level that may influence ECEC quality.

If, to what extent, and how local ECEC policy influences ECEC quality is a largely understudied topic to date, yet highly relevant given the shift of ECEC governance from the national to the local level (OECD, 2017). Local ECEC policy may matter for process quality in ECEC through effective governance of local networks in which ECEC centers participate, including shared mission building with partners in the local network, raising common professional standards and creating commitment to educational equity. The influence of local policy on the quality of pre-primary ECEC centers is the topic of the present study.

3.1.1 Decentralized governance

ECEC is in many countries privatized (state withdrawal), marketized (competition) and decentralized (execution and governance at the local level), fitting in with general trends in public administration in the past decades (Hague et al., 2016; UCLG, 2010). As a consequence, ECEC is often provided in hybrid systems by a mix of public and private organizations, either for-profit or not-for-profit (e.g., Lloyd, 2020; Robinson, 2016; Van der Werf et al., 2021). These general trends and the hybrid systems of supply that have emerged as a consequence, have called for a new role of local and national governments. While state-withdrawal and marketization of social services, including ECEC, were dominant approaches under the New Public Management philosophy, the increased interest in social services as contributing to the public good has fueled a shift from traditional centralized 'government' to new multilayered horizontal 'governance' (Bryson et al., 2014; Provan & Kenis, 2008).

In this *New Public Governance* approach, (local) governments stimulate coordination and cooperation of services in the function of addressing significant (local) social goals, which require collaborative decision making of several actors under auspices of the local government (Bryson et al., 2014; Denters & Rose, 2005; Hague et al., 2016). While the expectations are that local network collaboration allows for more integrated and effective public services tailored to the local context (Denters, 2011; Fleurke et al., 1997; UGLC, 2010), the quality of the service delivery will depend on the degree to which parties agree on common goals and professional quality standards, succeed in coordinating services and are able to reconcile potentially conflicting demands and interests, calling for effective local network governance (Noordegraaf, 2008; Provan & Kenis, 2008; Putters, 2009; Stoker, 2011). Regarding ECEC, in many countries, hierarchical prescriptive top-down approaches to quality assurance have been supplemented or even replaced by national quality frameworks and

curriculum guidelines, while decision making, regulation, monitoring and evaluation have become tasks for the local government (Neuman, 2005). However, there is still limited evidence on the impact of local governance on ECEC quality.

3.1.2 Context of ECEC and ECEC governance in the Netherlands

The Netherlands has a split, hybrid system for early childhood education and care for different age groups in the age range of 0 to 4 years, with different funding systems, different public tasks, and being subjected to different government bodies (for overviews, see Knijn & Lewis, 2017; Slot, 2018). Full day childcare for children from 0 to 4 years of age, to support parents in combining care and work, is provided by both for-profit and not-for-profit private childcare centers. Half day pre-kindergarten education for 2.5 to 4-year-old children from underprivileged communities used to be a task of public, municipality-run welfare organizations, but following successive privatization and harmonization reforms, this task is now carried out by private organizations as well, both for-profit and not-for-profit. At age 4, children in the Netherlands are eligible for full day kindergarten which is part of the publicly funded primary school system. Kindergarten is compulsory from age 5, but participation is already nearly 100% at age four (OECD, 2016).

In 2010, new legislation was implemented to harmonize the ECEC sector for under fours (OKE Act; Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). A single statutory quality framework was introduced for all types of pre-primary ECEC, regardless of the legal entity of the organization and type of funding. The harmonized quality framework specifies age-dependent equal structural quality, health and safety conditions, and defines equal developmental goals and global curriculum guidelines for all ECEC services. Furthermore, within this harmonized system, all services are equally eligible for additional subsidy within the national educational equity policy to reach out to underprivileged children and to provide them with high quality early education and care. Within the 2010 OKE Act, municipal governments are given a leading role in the implementation of the national educational equity policy. Municipalities have to set up agreements with ECEC providers regarding the enrollment of children of underprivileged backgrounds, to distribute subsidies following these children, and to assure high quality provision for them. However, to what extent municipalities succeed in fulfilling these requirements and tasks, and if local governance indeed, as is intended, relates to the quality of ECEC, is as yet unclear.

3.1.3 Current study

To the best of our knowledge no studies to date have addressed the impact of municipal ECEC policy on the quality of ECEC centers. This study fills this gap. The Dutch case is interesting because of the combination of a privatized hybrid ECEC system with a strong decentralized governance approach. In the Dutch system, municipalities have ample freedom to shape and implement ECEC policies, and to adapt national guidelines to the local context.

However, this could result in variation in ECEC quality between municipalities depending on the extent to which (a) municipalities comply with the legal requirements of the national policy and (b) succeed in their role of monitoring and improving the quality of ECEC and coordinating the local services. With regard to the latter, specifically (c) the local implementation of governance strategies regarding the social mission and outreach to underprivileged communities, shared goal setting, and interservice collaboration of ECEC and related services are of interest.

This chapter addresses the following research questions:

(1) Are there systematic differences in ECEC quality between municipalities in the Netherlands?

(2) To what extent are these differences in ECEC quality related to municipal educational governance?

We expected systematic differences between municipalities in ECEC quality as a consequence of the decentralized governance of ECEC in the Netherlands. To explain these differences, we first formulate two hypotheses that reflect the official governance view: 1) Pre-primary ECEC centers located in municipalities that comply stronger with the legal requirements municipalities have to fulfill, have on average higher observed process quality, and 2) Pre-primary ECEC centers located in municipalities that comply stronger with the coordination and quality assurance task assigned to the municipalities, have on average higher observed process quality.

Following recent insights in the potential of horizontal governance of local networks of social services, we add a third, exploratory hypothesis: pre-primary ECEC centers located in municipalities with stronger 'soft' local network governance, have on average higher ECEC process quality.

3.2 METHOD

This study focuses on the relation between municipal governance and the quality of the pre-primary ECEC centers. Data on the quality of the ECEC-centers comes from the large-scale national cohort study pre-COOL on the quality and effectiveness of ECEC (Pre-COOL Consortium, 2012; www.pre-cool.nl). Information on municipal ECEC governance comes from the ECEC policy monitor of the national Inspectorate of Education. Both studies were conducted in the same period, 2010-2012, allowing the linkage of both data sources.

3.2.1 ECEC centers

The national cohort study of preschool children (pre-COOL) was commissioned by the Dutch Ministry of Education, Culture and Science and the National Science Foundation (NWO) to investigate the quality and developmental effects of half-day and full-day pre-kindergarten education and care for 2- to 4-year-old children, with a specific interest in the developmental effects on children from underprivileged families with a low socioeconomic status or

migration background. The cohort started in 2010, when children were on average two years and three months of age. The children were followed during ECEC and primary school, with a final assessment at age 12, at the end of primary school. To facilitate the follow-up of the cohort through primary education, starting at age 4 in the Netherlands, a deliberate sample of 300 primary schools with a moderate to high representation of children from underprivileged backgrounds was drawn as the first step, of which 139 (46.3%) schools agreed to participate. Next, the participating schools were asked to identify ECEC centers that were attended by most of their new students. Five hundred and two ECEC-centers were approached, of which 263 agreed to participate (52.4%). The participating centers did not differ from non-participating centers in terms of geographical distribution across the Netherlands (Slot et al., 2015).

The cohort study included information on the quality of the pre-primary ECEC centers based on classroom observations. Classroom observations were conducted by trained research-assistants in two waves: in 2011 and in 2012. For logistic and methodological reasons, observations were only conducted in pre-primary ECEC centers with at least four children participating in the child assessments of the pre-COOL study. Observations were conducted in 162 centers in 2011 (61.6% of the total center sample) and in 150 centers in 2012 (57.0% of the total center sample), largely overlapping with the centers observed at the first wave (Pre-COOL Consortium, 2012; 2014). At both waves, about 45% of the centers provided a full day program and 55% a half day program. Due to the deliberate oversampling of centers serving underprivileged children, centers in urban municipalities with a larger proportion of underprivileged families were overrepresented. Nonetheless, the sample covered representative variation regarding the main types of ECEC for 0- to 4-year-olds in the Netherlands, while also small and middle-sized urban municipalities and small rural municipalities were included. The children served by the centers in the current sample were roughly equally children with and without socioeconomic risks (Leseman & Veen, 2022).

3.2.3 Municipalities

The information on the ECEC policies of municipalities comes from the Dutch Inspectorate of Education. The Inspectorate regularly monitors the compliance of the municipalities with the legal requirements set by the national government in the OKE Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). These legal requirements include setting up agreements with local parties about the children eligible for additional subsidy to participate in ECEC, referred to as target children. In addition, municipalities must ensure that the local supply of ECEC is sufficient to provide all target children with a place and initiate active outreach to encourage participation. Municipalities must also ensure that children are able to transition smoothly from ECEC centers to primary school and stimulate collaboration between ECEC centers and primary schools. Finally, municipalities, primary schools and ECEC centers have to agree

upon the aspired outcomes in terms of children's development that should be achieved by ECEC.

The Inspectorate also monitors to what extent the municipalities carry out their coordinating role with regard to ECEC. This concerns policies to involve parents, the use of an accredited ECEC curriculum, and coordination of other services with ECEC, in particular public child and youth health care, and youth care. The Inspectorate also monitors the extent to which municipalities evaluate and systematically attempt to improve the quality of ECEC (Inspectie van het Onderwijs, 2010).

In the period between 2010 and 2012, the Inspectorate assessed the local ECEC governance in all 338 municipalities in the Netherlands with ECEC provisions serving underprivileged children and receiving subsidy within the national educational equity policy (Inspectie van het Onderwijs, 2013). Merging the data of the municipal ECEC governance monitor of the Inspectorate with the data of the pre-COOL study on the quality of the ECEC centers, resulted in a sample of 157 centers, 96% of all centers of the pre-COOL study with group-based observations of process quality, that could be matched to the policy data of 36 municipalities, 11% of the nation-wide sample of the Inspectorate. This included 142 centers with process quality scores at both waves, 14 with quality scores at wave 1 and 1 with quality scores at wave 2 only. On average, 1.7 groups were observed at the centers at both waves, which concerned partly different groups at the two waves or the same groups but with different teachers. Group-based quality scores were aggregated to the center-level at both waves, resulting in 299 datapoints. To increase the statistical power of the analyses, all 299 datapoints were used, while wave was added as a control variable.

3.3 MEASURES AND PROCEDURES

3.3.1 ECEC classroom process quality

Classroom observations were used to evaluate the quality of the ECEC centers, with the Classroom Assessment Scoring System Toddler (CLASS; La Paro et al., 2011). Observers were trained by a licensed CLASS trainer and achieved at least 80% agreement within one scale-point deviation on a 7-point scale with the trainer on an online test before they were admitted to do the classroom observations (the average agreement was 86.2%; agreement by chance was 33%). Prior to the data collection, all observers were asked to conduct one live observation together with the trainer. Inter-observer agreement with the trainer within one scale-point deviation was on average 83.3%. Each classroom observation was conducted in the morning, during a three-month period in the Spring 2011 and Spring 2012. Classroom processes were, in accordance with the guidelines of the CLASS, observed during four 15 to 20 minutes cycles on the observation morning, covering child-managed play, teacher-led instruction, creative activity and snack time, but not outdoor play (Pre-COOL Consortium (2012).

The CLASS framework reflects the social-emotional and educational features of teacher-child and child-child interactions in the classroom that have been found to be positively related to children's development of self-regulation, pre-academic and social skills (La Paro et al., 2011). Classroom quality was assessed on the eight CLASS-dimensions, using 7-point scales ranging from 1 or 2 (classroom is low on that aspect); 3 to 5 (classroom is in the midrange); to 6 or 7 (classroom is high on that aspect). Following the CLASS manual, two overarching domains were distinguished (La Paro et al., 2011): (1) Emotional and behavioral support and (2) Engaged support for learning. Scores were computed as the mean of the dimension scores for each domain (Pre-COOL Consortium (2012).

3.3.2 Local educational governance

Municipal ECEC policy was assessed by experienced primary school inspectors. The inspectors were specifically trained for ECEC inspections and conducted at least two municipal ECEC governance inspections together with an experienced ECEC inspector. The inspectors interviewed the local policy staff responsible for ECEC policy, interviewed managers of ECEC services and studied the ECEC policy documents. The results of the assessments of the municipal ECEC policies were reported in a national report on the quality of municipal ECEC policies (Inspectie van het Onderwijs, 2013).The inspectors assessed the municipal ECEC policy on eleven aspects; five aspects addressing compliance with the legal requirements, six aspects corresponding to the coordination and quality assurance task of the municipalities (Table 3.1).

Table 3.1

Dimensions of Compliance With Legal Requirements and Coordination and Quality Assurance

Legal requirements	
Local agreement on the definition of eligible underprivileged children	Clear definition was formulated in line with the national education equity policy and the definition was well-explained and justified.
Ensuring sufficient outreach	The number of eligible children was known and sufficient supply for these children was created in terms of child places.
Encouragement to use ECEC facilities	Overview of the eligible children who did not use ECEC, implemented targeted measures to encourage eligible children and their parents to participate in ECEC, and agreements with local partners to share the responsibility for reaching out to the children and their parents and to implement effective measures.
Transition from ECEC centers to primary school	Agreements with the local partners in ECEC and primary education about the transition between ECEC and kindergarten departments of primary school to span the entire 2½ to 6 years age range, and about the transfer of information about the child.
Agreements on the results of ECEC	Determined what the results of ECEC should be in terms of child outcomes (e.g., regarding language skills).
Coordination and quality assurance	
Parental involvement	Policy implemented at the municipal level that included collecting information about the targeted population, informing parents about ECEC, providing activities for parent and stimulating parental participation in ECEC centers.
Use of an ECEC curriculum	Encouragement of ECEC centers to work with an officially approved ECEC curriculum, based on evaluations by the National Youth Institute or explicitly justified if the ECEC curriculum used was not officially approved.
Extra care for children	Overview of the care institutions that could be called upon by ECEC centers and primary schools and of the type of care these institutions could provide, agreements for collaboration and responsibility were clear.
Quality assurance system of ECEC and primary school	Shared view on quality and how to assess quality, and implemented a quality assurance system for ECEC and primary education.

Municipal ECEC coordination	Network of ECEC partners was well coordinated. There had to be coordination for the (central) city, as well as for the city districts, boroughs, neighborhoods, etc., as well as for the welfare organizations and school boards. Coordination did not only include ECEC strictly, but it included also the coordination with consultation bureaus, the Youth and Family Center, and the municipal care structure in total
Systematic evaluation and improvement of ECEC	Local agreements regarding ECEC and attainment of the desired results were evaluated annually, the findings were fed back to the field and any issues for improvement were identified and measures for improvement were implemented.

Each aspect was scored on a four-point scale, where a score of 1 stands for ‘inadequate’, 2 for ‘moderate’, 3 for ‘adequate’ and 4 for ‘good’. Each aspect described one or more criteria that had to be met. An aspect was scored as ‘inadequate’ if none of the criteria were met. An aspect was assessed ‘moderate’ if one or more criteria were met, but others were not. An aspect was assessed ‘adequate’ if all criteria were sufficiently met. A ‘good’ was given if an aspect was met excessively well and the municipality could serve as an example for others on this aspect.

Based on the assessments of the municipal ECEC policies by the Inspectorate, two constructs were created for municipal ECEC policy quality: (1) Compliance with legal requirements and (2) Coordination and quality assurance. The internal consistency of the two quality measures was acceptable (Cronbach's $\alpha = .719$ for compliance with legal requirements and $\alpha = .729$ for coordination and quality assurance). Principal components analysis was conducted with a forced two components solution. The two constructs were created as averages of the items weighted by the component scores.

For a further exploration, given the specific interest in the role of governance strategies to enhance shared social mission setting, orientation on the needs of the local community and interservice collaboration, 5 items of the original measurement instrument were selected, covering specifically strategies to increase outreach to underprivileged families, encouragement of these families to use ECEC facilities, to provide additional care and family support for children with special and additional needs, and the coordination of professional development and quality monitoring. The internal consistency of the construct Local network collaboration, covering a heterogeneous set of policy actions deemed relevant for local ECEC network functioning, was sufficient for the current purpose (Cronbach's $\alpha = .541$).

3.3.3 Control variables

A number of municipal context characteristics were included to control for possible confounds. The control variables included the *size* of the municipality (defined by the number of inhabitants), the *number of all 2-and 3-year-old children* living in the municipality, the *number of socioeconomically underprivileged children* eligible for ECEC and the *annual municipal budget* for educational equity policy in ECEC. This budget is assigned by the national government, based on weighted disadvantage scores per primary school, which are then aggregated to the municipal level. The disadvantage score reflects the proportion of children at a primary school with low to very low educated parents (lower prevocational education at most) above a certain threshold. The aggregated disadvantage score, therefore, indicates the severity of concentrated disadvantages among children in a municipality. Because of the high intercorrelations among these variables, we used *size* of the municipality and a combined variable *budget per target child* as control variables.

3.3.4 Analyses

The analyses focused on the relation between the quality of municipal ECEC policy with the quality of the ECEC centers in the municipalities. Given the hierarchical structure of the data, a multi-level linear regression was conducted, using R (Hox, 2017; Wickham & Grolemund, 2017). Two levels were distinguished: level 1 concerned the 299 quality observations at the two waves, which were nested in level 2, the 36 municipalities. The average cluster size based on datapoints nested within municipalities was 8.31. Two outcome measures were used in the analyses: (1) Emotional and behavioral support and (2) Engaged support for learning. These two outcome measures were highly intercorrelated (r = .599, p < .001). Therefore, we estimated separate models for both measures.

The analyses started with an intercept-only model (Model 0). This model was specified to estimate the amount of variance at the municipal level and to calculate the intra-class correlation (ICC). In Model 0, wave (1 or 2) was added as a fixed variable to control for the variance at the two measuring points. Model 1 includes the other control variables as well. The variables of interest, the two measures of municipal ECEC policy (compliance with legal requirements and coordination and quality assurance) were included in Model 2. Because the measures were highly intercorrelated (r = .772, p < .001), they were added in separate models (models 2a and 2b). Model 3 includes the measure of local network collaboration.

Relative model fit was compared using the AIC (with a decrease of the AIC indicating improved fit) and the pseudo R^2. Adding random slopes to the models did not result in a decrease of the AIC.

3.4 RESULTS

3.4.1 Descriptives

The mean scores for emotional and behavioral support were in all centers in all municipalities above the international benchmark of 3, while most centers in most municipalities scored above the conventional benchmark of 5, indicating overall sufficient to good quality (La Paro et al., 2011). With regard to engaged support for learning, the variance within and between municipalities was larger, while the mean scores were lower than for emotional and behavioral support, which is a common finding in studies in the Netherlands and elsewhere using the CLASS Toddler (Slot et al., 2019). It is also noteworthy that both measures indicated on average higher quality at wave 1 than at wave 2 (the standardized difference for emotional and behavioral support is medium-sized, for engaged support for learning small to medium-sized). We will return to this finding in the Discussion Section. Second, the mean score of the municipal indicators, based on raw scores, indicated overall implementation of the policy requirements just below 'adequate' (score 3) regarding all three indicators, but with large variation between municipalities. Third, the variance in budget per target child stands out. This budget varied from €374 to €16,593, which can be explained by the way these budgets are calculated (see Method): if disadvantages among children are comparatively mild and more equally distributed over schools (low degree of concentration), municipalities receive less budget per underprivileged child.

Table 3.2

Descriptive Statistics of ECEC Quality, Municipal Characteristics and Municipal Governance Indicators

	N	Mean	SD	Range
Process quality measures - Wave 1				
Emotional and Behavioral Support	156	5.38	.52	3.60-6.55
Engaged Support for Learning	156	3.30	.81	1.83-5.88
Process quality measures - Wave 2	**N**	**Mean**	**SD**	**Range**
Emotional and Behavioral Support	143	5.03	.40	3,95-6.00
Engaged Support for Learning	143	3.06	.61	1.75-4.33
Municipal characteristics	**N**	**Mean**	**SD**	**Range**
Municipal size (number of inhabitants)	36	138,424	161,291	20,579-755,605
Budget per target child (in €)	36	€8,419.25	€4,882.71	€374-16,593
Municipal policy measures	**N**	**Mean**	**SD**	**Range**
Compliance with legal requirements [a]	36	2.58	.37	2.00-3.33
Coordination and quality assurance [a]	36	2.52	.47	1.80-3.60
Local network collaboration	36	2.65	.38	2.00-3.80

Note. [a] In the table, we have included the unweighted average score so that the municipal constructs are comparable. In the models, we used the weighted average for the constructs Compliance with legal requirements and Coordination and quality assurance.

3.4.2 Multi-level analysis

A multi-level analysis was conducted to account for the nested structure of the data. We tested two series of multi-level models, based on the two outcome measures (emotional and behavioral support and engaged support for learning). In addition, we conducted an exploratory analysis.

Emotional and behavioral support

Table 3.1 shows the results of the multi-level analysis with emotional and behavioral support as dependent variable. Model 0 is the random intercept model, with only measurement wave included as level 1 predictor to control for the observed difference in quality scores between the two waves. Model 0 shows that 23.4% of the variance in emotional and behavioral support of ECEC centers can be attributed to the municipal level, considering wave as fixed effect. Model 1 includes two main characteristics of the municipalities; size and ECEC budget per target child. The results of model 1 show that municipal size and municipal ECEC-budget per target child were not significantly related to emotional and behavioral support. The model fit index AIC increased to 803.50, indicating worse model fit, and the explained variance was negative (-2.7%). Model 2 includes the ECEC policy indicators of the municipalities. Model

2a focuses on coordination and quality assurance, Model 2b on compliance to legal requirements. The results in Table 3 show that none of the indicators of municipal ECEC policies were significantly related to emotional and behavioral support. Adding these variables to the model led to a decrease of the AIC (Model 2a: AIC = 805.49; Model 2b: AIC = 805.39). Furthermore, the explained variance was negative (model 2a: R^2 = -4.2%, model 2b: R^2 = -4.0%) Therefore, Model 0 was considered the final model. In this model, only wave had a significant negative effect on emotional and behavioral support (β = -.690, p < .001). The other variables, municipal size, municipal budget per target child, and both municipal policy variables had no significant effect on emotional and behavioral support.

Table 3.3

Multilevel-analysis Emotional and Behavioral Support

Emotional and Behavioral Support	**Model 0**	**Model 1**	**Model 2a**	**Model 2b**
Fixed effects				
Intercept	.307**	.307*	.309*	.313*
Wave	-.690***	-.690***	-.690**	-.690**
Municipal size		-.030	-.032	-.020
Municipal ECEC-budget per target child		.023	.023	-.010
Coordination and quality assurance			.006	
Compliance legal requirements				.047
AIC	799.52	803.50	805.49	805.39
Variance partitioning ICC	23.4%			
Explained variance pseudo R^2		-2.7%	-4.2%	-4.0%

Note. *** p < .001. ** p < .010. * p < .050. β: regression coefficient. (Scale dependent variable: 3.60-6.55).

Engaged support for learning

Table 3.4 shows the results of the multi-level analysis with engaged support for learning as dependent variable. Model 0 shows that 14.2% of the variance in engaged support for learning of ECEC centers can be attributed to the municipal level, considering wave as fixed effect. Model 1 shows that municipal size and municipal ECEC-budget per target child were not significantly related to engaged support for learning. The AIC increased to 825.76, indicating a worse model fit, and the explained variance was negative (-.5%). Coordination and quality assurance, added in Model 2a, and compliance to legal requirements, added in Model 2b, neither significantly related to engaged support for learning. The explained variance in Model 2a was slightly positive (.9%), and the explained variance in Model 2b was slightly negative (-.7%). Adding coordination and quality assurance and compliance to legal requirements to the model led to an increase of the AIC (Model 2a: AIC = 825.24; Model 2b: AIC = 826.98). Therefore, Model 0 was considered the final model. In this model, only wave had a significant

negative effect on engaged support for learning (β = -.339, p < .010). The other variables, municipal size, municipal budget per target child, and both municipal policy variables had no significant effect on engaged support for learning.

Table 3.4

Multilevel-analysis Engaged Support for Learning

Engaged Support for Learning	**Model 0**	**Model 1**	**Model 2a**	**Model 2b**
Fixed effects				
Intercept	.127	.118	.152	.130
Wave	-.339**	-.338**	-.337**	-.337**
Municipal size		-.160	-.186	-.135
Municipal ECEC-budget per target child		.099	.069	.019
Coordination and quality assurance			.163	
Compliance Legal requirements				.111
AIC	823.09	825.76	825.24	826.98
Variance partitioning ICC	14,2%			
Explained variance pseudo R^2		-.5%	.9%	-.7%

Note. *** p < .001. ** p < .010. * p < .050. β: regression coefficient. (Scale dependent variable: 1.83-5.88).

3.4.3 Exploratory analysis

A final analysis was conducted to explore the relation between the municipal ECEC network governance and ECEC quality, with the construct local network collaboration included as predictor. Table 3.5 shows the results of the multilevel analyses on emotional and behavioral support (Model 3). The Table shows that local network collaboration was not significantly related to emotional and behavioral support nor did the construct add to the strength of the model (AIC = 805.29). The explained variance was negative (-3.9%).

Table 3.5

Multilevel-analysis Emotional and Behavioral Support and Network Items

Emotional and Behavioral Support	**Model 0**	**Model 1**	**Model 3**
Fixed effects			
Intercept	.307**	.307*	.323*
Wave	-.690***	-.690***	-.690***
Municipal size		-.030	-.027
Municipal ECEC-budget per target child		.023	-.009
Local network collaboration			.074
AIC	799.52	803.50	805.29
Variance partitioning ICC	23.4%		
Explained variance pseudo R^2		-2.7%	-3.9%

Note. *** $p < .001$. ** $p < .01$. * $p < .05$. β: regression coefficient. (Scale dependent variable: 3.60-6.55).

Table 3.6 shows the results of the multilevel analyses on engaged support for learning, including the local network collaboration variable (Model 3). Local network collaboration was significantly positively related to engaged support for learning ($\beta = .292$, $p < .05$). Adding local network collaboration led to a decrease of AIC (model 0: AIC = 823.09, model 3: AIC = 822.13) and a positive explained variance ($R^2 = 3.7\%$), indicating improved model fit.

Table 3.6

Multilevel-analysis Engaged Support for Learning and Network Items

Engaged Support for Learning	**Model 0**	**Model 1**	**Model 3**
Fixed effects			
Intercept	.118	.118	.173
Wave	-.338**	-.338**	-.337**
Municipal size		-.160	-.143
Municipal ECEC-budget per target child		.099	-.033
Local network collaboration			.292*
AIC	823.09	825.76	822.13
Variance partitioning ICC	14.2%		
Explained variance pseudo R^2		-.5%	3.7%

Note. *** $p < .001$. ** $p < .010$. * $p < .050$. β: regression coefficient. (Scale dependent variable: 1.83-5.88).

3.5 DISCUSSION AND CONCLUSIONS

3.5.1 Discussion

ECEC systems have been increasingly privatized and marketized in the past decades, while traditional hierarchical governance and quality assurance have been supplemented and even replaced by new forms of multilayered 'soft' and 'horizontal' governance at the local level, using global guidelines, process recommendations and encouragements to collaborate locally rather than 'hard' legal requirements and detailed prescriptions (cf. Denters & Rose, 2005; Hague et al., 2016). Yet, still little is known about the impact of these forms of governance on the quality of ECEC. The present study conducted in the Netherlands, provides first tentative evidence on this issue.

Dutch ECEC presents an interesting case because ECEC in the Netherlands is provided by both public and private for-profit and not-for-profit organizations, while the governance of ECEC is strongly decentralized to the municipal level. Within this hybrid system, pre-primary ECEC centers have a high level of autonomy, while local governments, in turn, also have ample freedom to shape and implement ECEC policies, thereby risking wide variation in quality both at the center and the municipal level. To ensure sufficient accessibility and quality, especially for children from families with lower financial resources, lower parental education or a migration background, and to prevent strong differentiation between municipalities, the national government has issued a number of legal requirements and guidelines that should be observed, respectively encouraged locally. The national Inspectorate of Education, has the task to monitor the compliance of the municipalities with these requirements and guidelines. The overarching question of the present study was whether this form of governance impacts ECEC quality.

The present study is to the best of our knowledge one of the first to examine this form of decentralized governance of a hybrid ECEC system. The two questions addressed in this study were: *(1) Are there systematic differences in ECEC quality between municipalities in the Netherlands?; (2) To what extent are these differences in ECEC quality related to municipal educational governance?* To answer these questions, we merged observational data on the emotional and behavioral support and engaged support for learning of pre-primary ECEC centers nested within municipalities, collected in a large-scale national cohort study in 2011 and 2012, with data on the ECEC policies in these municipalities collected within the same time frame by the Dutch Inspectorate of Education as part of the Inspectorate's monitoring task.

The results showed, as expected, considerable systematic differences in observed ECEC quality between municipalities: 23.4% of the variance in emotional and behavioral support and 14.2% of the variance in engaged support for learning was located at the level of the municipalities. This amount of municipal level variance can be considered large compared to, for instance, the variance at the municipal level found for primary schools in a related study in partly the same municipalities, which amounted to 4% at most on several quality

indicators (Van de Kuilen et al., in prep.; Chapter 4). Thus, the findings suggest ample room for effect of local policy in ECEC. However, contrary to the expectations and also to the assumptions underlying the Dutch governance approach to ECEC, the variance at the municipal level could not be explained by the degree in which municipalities complied with the legal requirements (hypothesis 1) and fulfilled their legally required coordination and quality assurance task (hypothesis 2), as assessed with the standard monitoring instrument of the Inspectorate of Education. Thus, despite substantial variance at the municipal level, the governance approach, reflected in the indicators used to monitor local ECEC, was apparently not effective. There are several possible explanations. Most of the requirements and guidelines are formulated in terms of formal agreements and procedures that have to be established between local partners, or in terms of definitions and targets that have to be agreed upon locally. However, the content of these agreements and their implementation are not specified (and thus not monitored), nor is the adequacy of the specific agreements and definitions reached at the local level tested. Possibly, this procedural, formal, and 'content-free' approach allows for too much variation when it comes to actual implementation.

As a further exploration, we selected, from the monitoring instrument of the Inspectorate, a subset of indicators that most closely reflected current scholarly views on effective network governance in decentralized systems (cf. Bryson et al., 2014; Provan & Kenis, 2008). This involved specifically indicators concerning strategies to increase parent and community involvement, interservice coordination in order to provide extra care and family support for children with additional needs in ECEC, the presence of a comprehensive intersectoral services network including public infant and child health care, youth care, family support and other social services, and a well-established coordination role. A composite measure of these indicators was found to significantly predict municipal variance in the observed engaged support for learning of the pre-primary ECEC centers but not in emotional and behavioral support, thus partly confirming our exploratory hypothesis 3. The latter can possibly be explained by the overall high level of emotional and behavioral support of Dutch ECEC found in the current study, in line with the findings in a nationally representative ECEC quality monitoring study (Slot et al., 2019). Likely, emotional and behavioral support may have had less priority in the local policy context than engaged support for learning, where further improvement was, and still is, clearly needed in most municipalities (Slot et al., 2019).

Thus, our additional exploratory analysis seems to indicate that effective local network governance can have an impact on, at least, the engaged support for learning of pre-primary ECEC centers. This finding is in line with the findings of recent research using nationally representative data on Dutch ECEC collected in 2017 and 2018 (Van der Werf et al., 2021), suggesting that network governance at the local level, with a relational approach based on a shared social mission, mutual trust and equality of parties, can achieve public goals more effectively than traditional sectoral top-down governance. A recent study in the USA also

points to the positive effect of ECEC centers' engagement with the local community on the provided quality (Bayly et al. 2021). With regard to monitoring the quality of ECEC, as a task of the Inspectorate of Education in the Netherlands, the findings, therefore, also suggest that more emphasis on the structure, dynamics and governance of local networks around ECEC could result in a more valid assessment of the quality of the local educational policy.

As a large part of the variance in observed quality at the municipal level could not be explained by the current policy measures, other factors at the municipal level are likely to correlate ECEC quality as well. A possibly important factor is the (additional) local quality monitoring of ECEC by the municipal Health Authority, focusing on compliance with statutory regulations regarding heath, physical and emotional safety, and structural quality. Part of the variance at the municipal level may have reflected differences in monitoring by the local Health Authorities. However, no measurements were available to test this hypothesis. It should be noted that, although decentralized to the local level, all local Health Authorities apply the same statutory quality framework and coordinate their monitoring nationally. Thus, while other, unobserved factors at the municipal level may have caused additional variance in ECEC process quality, at least a significant part of the variance found in this study could be related to local network governance.

Another finding of the present study is that the budget per child did not explain variance in the observed emotional and behavioral support and engaged support for learning of ECEC. This may point to compensatory effects of the variation in budget, as is intended by policy. In the Dutch system, the budget per child available to a municipality reflects the aggregated severity and concentration of children's socioeconomic disadvantages: the less severe and concentrated the disadvantages based on socioeconomic indicators, the smaller the budget. If the severity of disadvantage causes *ceteris paribus* lower quality of ECEC centers due to the accumulation and concentration of risks (e.g., Lee et al., 1998; see also Condron et al., 2013, for a similar analysis regarding school segregation in the USA), higher budgets per child accrued at the center level may facilitate measures to counteract this negative effect on quality. In an analysis of the socioeconomically segregated Dutch primary school system with additional budget per student based on similar disadvantage indicators, Ladd and Fiske (2011) reached exactly this conclusion. To the extent that this budgetary compensation mechanism is indeed effective, no association would be expected between the budget per child and the quality of ECEC at the level of municipalities.

Lastly, the results showed that the quality of Dutch ECEC declined substantially between 2011 and 2012, coinciding with a drastic cut in the subsidy of childcare costs for parents using full day childcare but not for parents using half day educational pre-kindergarten programs with funding through the municipalities. This decline has been analyzed previously, using a difference-in-differences approach to establish causality (Akgündüz & Heijnen, 2016). This study showed that highly likely due to the subsidy cut the quality in full day childcare centers declined by about one third of a standard deviation, while

the quality in the half day pre-kindergarten centers that were not affected by the subsidy cut, was maintained. Although not directly related to the topic of the current study, these findings add to the evidence that local and national policies regarding funding do matter for ECEC quality in privatized hybrid systems, whether by causing shocks that affect quality or by compensating for the potential negative effect of risk accumulation and concentration, as was discussed above.

3.5.2 Limitations

Several limitations to the present study should be mentioned. First of all, the sample at the municipal level was small and the analyses may have been underpowered at this level. In addition, large urban municipalities were overrepresented and small rural municipalities were underrepresented in our sample. Note, however, that we found substantial variation in ECEC quality between municipalities which, in our exploratory analysis, could at least partly be explained by an exploratively adapted policy construct. Second, related to this, the monitoring instrument of the Inspectorate of Education to assess the quality of local educational policy focused on compliance with formal procedures and agreements, in line with the Dutch governance approach to ECEC. However, this may have resulted in noisy or irrelevant indicators, which failed to provide insight into the actual implementation of local ECEC policies and, therefore, could not explain the observed municipality level variance in quality. In-depth theoretically informed research on local networks, for example regarding their structure, mission, and internal communication and interaction, can provide more insight into the relationship between local network governance and the quality of ECEC. Finally, the use of a correlational design does not allow for conclusions regarding the causal direction of the predictive relationship found in the exploratory analysis. Nonetheless, we believe that the current findings are relevant to the issue of optimizing the governance of ECEC in hybrid, decentralized systems.

3.5.3 Conclusion

The main conclusion of the present study, based on Dutch data, is that in hybrid, decentralized ECEC systems substantial differences may emerge between municipalities in the emotional and behavioral support and engaged support for learning provided by ECEC centers, despite a national harmonized legal framework and global curriculum guidelines. In an exploratory analysis, we found indications that effective local network governance may be important for the quality of ECEC. The stronger the governance of local networks, the higher the quality of the pre-primary ECEC centers, which may benefit from a strong role of the municipality as coordinator, convenor or catalyst within the local network. A more pronounced focus on ‘soft’ local network governance is recommendable in hybrid, decentralized systems. Monitoring the compliance with statutory formal and procedural requirements, reflecting a traditional hierarchical governance approach, may have less impact on ECEC quality in such systems.

4 EARLY CHILDHOOD EDUCATION EQUITY POLICY UNDER DECENTRALIZED GOVERNANCE

Author contribution: **L. van de Kuilen**: Conceptualization, Methodology, Formal analyses, Writing. **P. Leseman**: Review & editing. **I. de Wolf**: Review & editing.

Abstract

Early educational equity policies are used for combatting educational inequalities. In this chapter we examined how characteristics of the Dutch educational governance mode are related to the implementation of the national early educational equity policy in the kindergarten departments of primary schools. We focused on four teacher-reported indicators of effective implementation of the educational equity policy: the provision of an age-appropriate academic curriculum for fostering language, literacy and numeracy skills; the use of guided play to foster executive function and self-regulation; the provided emotional support and child-centered pedagogy; the creation of a culturally inclusive classroom climate. Multilevel-regression analysis was applied to decompose the variance in these indicators into variance components at the classroom, school, school board, and municipality level. The results showed that the largest part of the variance in the implementation of educational equity policy was located at the classroom and school level. Contrary to our expectations, and also contrary to the responsibility and concomitant power attributed per law to the schools boards and the municipalities, very limited to hardly any variance was associated with the school boards or the municipalities. Despite the fact that school boards receive additional funding for implementing measures to increase educational equity as part of their block grants, they seem to exert only minor influence on teachers and schools in this regard. Municipalities, despite their coordinating role, seem to lack the fiscal and administrative instruments to effectively effect the implementation of the national educational equity policy in schools.

4.1 INTRODUCTION

Educational disadvantages based on socioeconomic and cultural factors emerge early in children's lives and tend to persist through primary and secondary school. Recent analyses of national cohort data in three European countries (Germany, the Netherlands, the UK), suggest that between 50% and 80% of the education gap by socioeconomic or immigrant status of the family at the end of primary school is already present in early childhood, at age 4 or 5 (Passaretta et al., 2022). Similar findings have been reported in large cohort studies in Australia, Canada, the UK and the USA (Bradbury et al., 2015). National educational equity policies in many countries, therefore, increasingly focus on the early childhood period, before formal instruction in primary school starts, to combat early emerging disadvantages. Policy measures include, among others, offering targeted education programs to children who meet particular criteria of risk or deprivation (Blau, 2022; Leseman et al., 2017; OECD, 2012), facilitating access for underprivileged children to universal childcare and preschool through financial support (e.g., Cornelissen et al., 2018; Sibley et al., 2015), allocating extra financial resources to centers and schools with large proportions of underprivileged children (Ladd & Fiske, 2011; Pickett & Vanderbloemen, 2015; Poesen-Vandeputte & Nicaise, 2013; Reardon, 2011), providing social support and home-based education programs to underprivileged families with young children (Fikrat-Wevers et al., 2021; Ryan & Padilla, 2019), and combinations of these measures (Camili et al., 2010; Grindal et al., 2016; Sheridan et al., 2011).

The multiple measures taken to address early emerging educational inequity reflect the complexity of the problem (Snyder, 2013). This complexity is further exacerbated by the complexity of the systems wherein these measures have to be implemented. Early childhood education and care (ECEC) for children up to age 6 or 7, when formal instruction in primary school starts, is in most countries across the globe provided in split systems of both targeted and universal programs for children until age 4 or 5 and universal kindergarten from that age until first grade, with different funding systems, legislations and government bodies being legally responsible (OECD, 2017). While early ECEC programs are often governed within a social welfare and labor market policy framework, kindergarten is commonly part of the education system, governed by the Ministry of Education under the national education legislation, and sometimes fully integrated into the primary school system (as in the Netherlands, the UK, and some states in Australia and the United States). Coordinating the fragmented ECEC system in order to be able to provide a continuous high quality early education program from an early age until grade 1 of primary school, to effectively reach out to those who will benefit most from the program, and to avoid or, at least, smooth disruptive transitions, is a challenge and an understudied topic in ECEC research (Kauerz, 2018).

The modes of governance of the different components of the ECEC system may differ fundamentally. While ECEC before kindergarten in most countries is provided in a privatized and decentralized system, with both for-profit and not-for-profit private providers in regulated

but competitive markets, kindergarten in most countries is still a largely public or, at least, publicly financed not-for-profit system much like the primary education system (Neuman, 2005; OECD, 2017). This raises the question how the national educational equity policy for early childhood is implemented and who is responsible and in control. Whereas governance modes for the pre-kindergarten part of the ECEC system vary between market competition with limited government involvement to governance based on public-private collaboration in horizontal networks of services under 'soft' leadership of the local government (Neuman, 2005; Van de Kuilen et al., 2023, Chapter 3; Van der Werf et al., 2021), the kindergarten-primary school part of the ECEC system may show a quite different type of governance, in line with the governance of the national education system as a whole.

4.1.1 Trends in educational governance

Historically, and in an international perspective, the mode of governance of the national education system varies between highly centralized-hierarchical and highly decentralized-autonomous. Modes of educational governance reflect deeply rooted national traditions, the nature of the welfare state, the degree of corporatism, and outcomes of power struggles in the past, often between the church and the state (Daun, 2011; Willekens, 2009). Increasingly, also supranational agendas and agreements (as in the European Union) and global trends in public administration (state withdrawal, privatization, New Public Management) have influenced the national educational governance approach (Daun, 2011; Wilkoszewski & Sundby, 2014). The net result of these trends is increased decentralization of educational governance and a shift from hierarchical top-down to multi-level steering, but this may have taken different forms across countries and reveal hybridity, tensions and contradictions between remaining elements of hierarchical top-down and newer forms of multilevel 'soft' governance strategies (Hooge et al., 2012; Wilkoszewski & Sundby, 2014). With regard to educational equity policy in early childhood, a key question is whether particular forms of multilevel governance are more effective than others in coordinating the implementation of this policy, given the often complex and fragmented structure of the national ECEC systems.

Educational governance comprises many actors at different levels of society: the national government, the national ministerial bureaucracy, the provincial or regional government, the local government, local school boards responsible for multiple schools, school boards and school principals of single schools, teachers, parents who as consumers may have freedom to choose a school, and even students in so far as they are allowed to participate in educational decision making. How the power is distributed across levels and actors (who has a vote), with regard to which aspects of education (e.g., curriculum, standards and assessment, finance, recruitment of staff, staff salaries, class size, admission and enrollment, et cetera) may show quite different configurations across countries (Honingh et al., 2020; Mintrom & Walley, 2011; OECD, 2016; Wilkoszewski & Sundby, 2014).

Simple conclusions about the effectiveness in terms of student outcomes and educational equity are not easy to draw, as a comparison of Finland and South-Korea reveals, two consistently high scoring countries in successive international comparisons of student achievement in primary and secondary education (Mintrom & Walley, 2011). The educational governance mode in these countries shows a number of commonalities. In both countries, in contrast to many lower achieving countries, the heavy weight of educational governance lies at the municipal level. In addition, in both countries, also in contrast to many lower achieving countries, the education system provides universal pre-primary education from an early age. Furthermore, in both countries, the freedom of school choice is limited and so is school segregation by socioeconomic or ethnic-cultural background as a consequence of parental choice. However, a critical difference concerns the level of autonomy regarding curriculum, assessment, and allocation of resources at the school and teacher level. Decisions about the implemented curriculum in Finland are made locally within an open, value-driven national curriculum that emphasizes educational equity and inclusion. At the school level, teachers in Finland enjoy a high level of autonomy, while schools in Korea follow the highly prescriptive national curriculum which is further reinforced by mandatory high-stakes national tests that are frequently repeated from kindergarten to the end of secondary school.

While both Finland and Korea have consistently high average scores in international assessments, they differ remarkably in educational equity. The variance in student achievement and the gap between the highest and lowest achieving students are in Finland much smaller than in Korea, while the percentage of students referred to special education in Finland is among the lowest in the world (Morgan, 2014; Takala et al., 2009). In these respects, the Finnish system is more equitable and inclusive than the Korean system. A possible explanation, according to Mintrom and Walley (2011), is the greater autonomy regarding curriculum, pedagogy and assessment at the school and teacher level in Finland compared to Korea, which allows for more adaptation to students' diversity and needs. This autonomy at the teacher and school level, however, is not unconditional but, in the Finnish case, constrained by the value-based coordination between schools at the municipal level, under auspices of the municipal government within a shared equity and inclusion mission (Haapaniemi et al., 2020; Morgan, 2014).

Relatedly, a study by the OECD (2010), based on the PISA assessment of 2009, found positive correlations at the country level between, on the one hand, (1) the autonomy of schools for curriculum and assessment, which allows for individualized approaches to learning and instruction, (2) continuous high quality learning environments from universal pre-primary education to the end of secondary school, and (3) limited parental choice and, therefore, low horizontal differentiation and school segregation, and, on the other hand, performance indicators such as a high average level of school achievement in reading, math and science,literacy, low transfer rates (fewer students changing schools, fewer referrals to special education), improvement of students' reading scores over successive comparative

assessments, reduced variance between students and a smaller gap by socioeconomic background in reading achievement.

However, despite this suggestive evidence, there is still limited empirical evidence on the impact of particular modes of educational governance on student outcomes and educational equity in general and of the decentralization of educational governance to local governance bodies in particular (for a systematic review, see Honingh et al., 2020). The present study aims to contribute to the knowledge by examining the implementation of the national early childhood educational equity policy in the context of the split and strongly decentralized Dutch ECEC system, focusing specifically on the kindergarten subsystem.

4.1.2 ECEC and educational governance in the Netherlands

The Netherlands has a split, hybrid system for early childhood education and care (ECEC) for different age groups in the age range of 0 to 6 years, when formal instruction in primary school starts, characterized by different funding systems and different government bodies being legally responsible (for overviews, see OECD, 2016; Leseman & Slot, 2020). Full day childcare for children of 0 to 4 years of age, to support parents in combining care and work, and half day pre-kindergarten education for 2.5 to 4-year-olds from underprivileged communities is provided by both for-profit and not-for-profit private childcare centers. At age 4, children in the Netherlands are eligible for universal, free of charge full day kindergarten which is part of the publicly funded primary school system. Kindergarten is compulsory from age 5, but participation is already nearly 100% at age 4 (OECD, 2016).

In 2010, legislation was implemented to harmonize the Dutch ECEC sector for under fours (OKE Act; Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). A single statutory quality framework was introduced that specifies age-dependent equal structural quality, health and safety conditions, and defines equal global curriculum guidelines for all ECEC services for under fours. In addition, the framework emphasizes the importance of continuous trajectories of development and learning across the transition from pre-primary ECEC centers to the kindergarten departments of primary schools. Municipal governments are given a leading role in the implementation of the national educational equity policy for early childhood. Municipalities have to set up agreements with ECEC providers and primary schools regarding the enrollment of children of underprivileged backgrounds, to distribute subsidies following these children in the 2 to 4 years of age range (kindergarten from age 4 is a universal system and fully subsidized by the national government), to assure high quality provision for them, to implement policies to support parent involvement, and to promote continuity of pedagogy and curriculum between pre-primary ECEC and primary school kindergartens.

Municipalities, however, have to fulfill this coordinating role in a complex policy and governance context. The Netherlands has a long history of educational equity policy, with over the years a consistent division between two main policy pillars (Leseman & Slot, 2020):

(1) providing additional subsidy to primary schools (including kindergarten), based on the proportion of children of underprivileged backgrounds at school as a block grant without specific requirements as to how this additional budget should be spent; and (2) providing additional earmarked subsidies, based on the aggregated proportion of children of underprivileged backgrounds, to municipalities for pre-primary ECEC (the largest part), parent and family support, and other community-based welfare measures to flank ECEC. Previous policy evaluation studies found no measurable impact of the first policy pillar on reducing educational inequity and some impact of the second pillar (Claasen & Mulder, 2003; Driessen, 2012; Mulder & Meijnen, 2013).

This dual-pillar educational equity policy is a direct consequence of the current mode of educational governance and the constitutional freedom of education in the Netherlands. The heavy weight of the educational governance lies at the level of the local or regional executive school boards. The decentralized governance reflects the pillarized system of the past that resulted from power struggles in the 19th century between the state and the religious communities. School boards are either confessional, endorsing another special philosophy, or non-confessional 'public' boards (comprising schools that were previously directly run by the municipalities), and they differ vastly in the number of schools they are responsible for and in the degree of autonomy they allow to their schools (Honing et al., 2020). Board members are non-elected officials, who are commonly appointed by co-optation (confessional boards) or by the municipality (public boards). The decision-making power of school boards has grown in the past decades (Hooge et al., 2014). As a result, the current Dutch education system can be characterized as one of the most decentralized, autonomous and complex systems in the world (OECD, 2016; Waslander et al., 2016).

In this context, the power of the national government is limited and essentially dependent on strategies of soft governance. The national government provides block grants to the school boards, who are responsible for distribution of the grants among the schools in their jurisdiction and for quality assurance. The national government sets global quality standards and learning goals, and compliance is monitored by the Dutch Inspectorate of Education. The national standards and learning goals are not specifically focused on the kindergarten period, nor do they provide guidelines as to how to implement equity policy in kindergarten. School boards can decide whether, how and when they wish to encourage policies in their schools, including measures to increase educational equity (Waslander et al., 2016). While school boards and municipalities are per law required to set up annual agreements to tackle the problem of educational inequity no further guidelines are provided and municipalities have no fiscal or administrative power over schools.

To summarize, the educational governance mode of the Dutch primary school system, including kindergarten, is characterized by a high degree of decentralization and a high degree of autonomy for the school boards and schools regarding curriculum, pedagogy and assessment. The municipalities are required to coordinate the implementation of the

educational equity policy in early childhood across primary schools, pre-primary ECEC and child and family services by using soft governance strategies but have no fiscal or administrative power over the primary schools in their jurisdiction.

4.1.3 Current study

In a previous study, using data collected in the period 2011-2014, we found indications that a strategy of soft governance at the municipal level, based on equity mission-driven collaboration between providers under auspices of the municipality, was significantly associated with higher observed educational process quality in pre-primary ECEC for 2.5 to 4-year-old children (Van de Kuilen et al., 2023; Chapter 3). In another study, with nationally representative data from 2016-2019 and a further elaborated theoretical model of local collaborative governance, we found that, compared to other modes, local governance based on formalized, equity-mission driven, collaborative networks of services under inspirational leadership of the local municipality was associated with higher educational process quality, stronger policies of parent involvement and more pedagogical and curricular continuity between pre-primary ECEC and primary school kindergarten (Van de Kuilen et al., in prep.; Chapter 5). Modes of governance characterized by low inter-service collaboration, lack of a shared equity mission and weak municipal leadership were associated with the lowest quality. These associations were statistically significant and rather strong with regard to pre-primary ECEC but less clearly so regarding primary school kindergarten.

In the present study, we focused more in detail on the kindergarten period and examined how the current governance mode of Dutch primary education is related to the implementation of the early childhood educational equity policy. More specifically, in a multi-level analysis, we decomposed the total variance in a set of selected indicators of the implemented educational equity policy into four components, reflecting the structure of the educational governance mode of the Netherlands: the variances at the classroom, school, school board and municipality level, respectively, and examined to what extent variance at the municipal level could be explained by the local governance mode. The following research questions were addressed:

(1) Are there systematic differences in the implementation of the national educational equity policy in kindergarten between classrooms, schools, school boards and municipalities in the Netherlands?

(2) To what extent are the differences in the implementation of educational equity policy in kindergarten between municipalities related to characteristics of the municipal educational governance?

Based on the current mode of educational governance in the Netherlands, with a key role for the school boards, we expected significant and substantial variance at the level of the school boards. Based on the role attributed to the municipalities in coordinating the local

implementation of the Dutch national educational equity policy, we expected also significant and substantial variance at the municipal level. Following the findings in our previous exploratory studies in pre-primary ECEC (Van de Kuilen et al., 2023; Van de Kuilen et al., in prep.; Chapters 3 and 5), we furthermore expected that a collaborative, equity mission-driven local educational governance approach would be associated with better implementation in kindergarten of the national educational equity policy.

4.2 METHOD

The present study used data from two studies. Data on the implementation of the national educational equity policy in kindergarten classrooms were collected in 2013 and 2014 within the pre-COOL study, a large-scale child-level national cohort study on the quality and effectiveness of ECEC (Pre-COOL Consortium, 2012). Information on the municipal governance was collected within the ECEC policy monitor of the Dutch Inspectorate of Education, conducted in the period 2010 to 2012. ECEC policies of municipalities are generally set after the election of a new municipality council. Municipality council elections took place in 2010 and next in 2014, so the municipal data from 2010-2012 apply to the kindergarten data.

4.2.1 Participants – kindergarten teachers in primary schools

The national cohort study of preschool children (the pre-COOL cohort study) was commissioned by the Dutch Ministry of Education, Culture and Science and the National Science Foundation to investigate the quality and developmental effects of pre-kindergarten and kindergarten education and care provisions for 2 to 6-year-old children in the Netherlands (Pre-COOL Consortium, 2012). The cohort started in 2010, when children were on average two years and three months old. The children were followed during ECEC and primary school, with a final follow-up assessment at age 12, the end of primary school in the Netherlands (Leseman & Veen, 2022). The sample was constructed in three steps. First, to facilitate the follow-up of the cohort through primary education, a deliberate sample of 300 primary schools with a moderate to high representation of children from underprivileged backgrounds was drawn, of which 139 (46.3%) schools agreed to participate. Next, the participating schools were asked to identify the local pre-primary ECEC centers that were attended by most of their new children. Approximately 500 centers were approached, of which 282 agreed to participate in pre-COOL (56.0%). Children were recruited within the participating pre-primary ECEC centers and followed-up until age 4, when they transitioned to the kindergarten departments of primary schools. At the end of the pre-primary period, teachers of participating children were asked which primary school kindergarten departments the children would attend from age 4. In addition, register data were used to locate children in primary schools after the transition for whom this information was missing. As the third step of the sample construction, primary schools that received cohort children were contacted for

participation in the pre-COOL study. About 1000 schools were approached of which about 830 (83%) agreed to participate, constituting the current sample of schools.

Data collection in the kindergarten departments used a questionnaire for teachers, sent out to the whole sample, and classroom observations in smaller subsamples at two measurement waves, in 2013 and 2014 respectively. In the present study, only questionnaire data were used as the observation samples were rather small and selective (focusing on classrooms with a high representation of underprivileged children). The questionnaire contained questions about structural characteristics, such as the socioeconomic and ethnic-cultural composition of the class and the number of children, and addressed the implementation of a curriculum to foster academic skills (language, literacy and numeracy), the use of guided play, the social-emotional climate and activities to increase cultural inclusion (to be detailed below). At the first measurement wave in 2013, when the children were in the first kindergarten grade, (nearly) complete responses were obtained from 425 teachers working in 344 primary schools. At the second wave in 2014, when children were in the second kindergarten grade, the questionnaire was completed by 620 teachers from 580 primary schools, partly overlapping with the first wave schools sample. The overall positive response rate at the teacher level for the two waves was 65.2% (Leseman & Veen, 2022).

4.2.2 Participants – municipalities

The information on the ECEC policies of municipalities comes from a monitor of the Dutch Inspectorate of Education. The Inspectorate monitors the compliance of the municipalities with the legal requirements set by the national government in the OKE Act (Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). These legal requirements include agreements with local parties about the children eligible for ECEC, referred to as target children. In addition, municipalities must ensure that the local supply of pre-primary ECEC is sufficient to provide all target children with a place and initiate active outreach to encourage participation. Municipalities must also ensure that children are able to transition smoothly from pre-primary ECEC centers to the kindergarten departments of primary schools and stimulate collaboration between ECEC centers and primary schools. Finally, municipalities, primary schools and pre-primary ECEC centers have to agree upon the results in terms of children's development that should be achieved by ECEC until first grade of primary school.

The Inspectorate also monitors to what extent the municipalities carry out their coordinating role with regard to ECEC quality. This concerns policies to involve parents, the use of an accredited ECEC curriculum, and coordination of other services with ECEC, in particular public child and youth health care and youth care. In addition, the Inspectorate monitors the extent to which municipalities coordinate, evaluate and systematically improve the quality of ECEC, and whether agreements are made on the use of a quality assurance system in ECEC centers (Inspectie van het Onderwijs, 2010).

In the period between 2010 and 2012, the Inspectorate assessed the quality of municipal ECEC governance in all 338 municipalities in the Netherlands with ECEC provisions (Inspectie van het Onderwijs, 2013). Merging the data of the municipal ECEC monitor of the Inspectorate with the data of the pre-COOL cohort study on the quality of kindergartens collected at two measurement waves, resulted in a sample of 843 teachers from 555 primary schools in 110 municipalities. As the questionnaire data showed that 78.5% of the teachers taught an age-heterogenous integrated first and second grade kindergarten class, combining the questionnaire data of the two waves to obtain a large sample was deemed appropriate. Thirty seven teachers (4.4%) filled out the questionnaire at both measurement waves, and 187 schools (33.7%) overlapped in the first and second wave.

4.3 MEASURES AND PROCEDURES

4.3.1 Equity policy implementation in kindergarten

To assess the implementation of early childhood equity policy in the participating kindergarten departments, we selected four indicators from the teachers (self-report) questionnaire. These four indicators are: (1) the implementation of an age-appropriate academic curriculum for fostering language, literacy and numeracy skills; (2) the use of guided play and pretend play to foster executive function and self-regulation; (3) the provided emotional support and child-centered pedagogy; (4) the creation of a culturally inclusive classroom climate. This selection of indicators reflects the emerging consensus, based on recent reviews and several large-scale experimental and quasi-experimental studies in different countries (including Scandinavian countries with a long tradition of a child-centered approach in ECEC; Bleses et al., 2021; Rege et al., 2022), that reducing early educational gaps in an effective ECEC program, strikes a balance between more structured and teacher-led academic instruction, possibly through the use of supplementary domain-specific curricula with interactive instruction formats (Ansari & Purtell, 2017; Bleses et al., 2021; Chambers et al., 2016; Duncan et al., 2022; Rege et al., 2022), and child-directed play activities with teacher guidance to enrich the play and foster self-regulation (Diamond & Lee, 2011; McClelland et al., 2017; Rege et al., 2022; Skene et al., 2022; Whitebread et al., 2017) within an overall child-centered emotionally supportive and culturally inclusive classroom climate (cf. McClelland et al., 2017; Romijn et al., 2021; Sabol et al., 2013).

Academic curriculum. The scale Academic curriculum assessed teachers' self-reported implementation of a range of age-appropriate language, literacy and math activities. A total of 24 questionnaire items listed typical kindergarten activities such as explicit object labeling, explaining word meanings, dialogical book reading, counting, labeling geometrical shapes *et cetera*, and asked teachers to indicate on a seven-point scale how frequently they provided these activities in their classrooms, with scale points ranging from 1 'never' to 7 'three times or more per day'. Example items are: '[How often does this activity occur in your classroom?] labeling an object or action', '[…] explaining the meaning of a word', '[…] talking about a

topic of interest, such as plants, animals, the seasons, history…', '[…] reading and discussing a picture book', '[…] counting till 10', '[…] measuring or weighing what is longest, heaviest…', '[…] labeling the shape of a triangle, square, rectangle, circle…'. Cronbach's alpha of the scale was excellent (α = .938).

Guided play. The scale Guided play assessed teachers' self-reported strategies to enrich children's play and to foster children's perseverance, collaboration and symbolizing during (pretend) play. Six items addressed to what extent the use of particular strategies of play enrichment applied to the teacher, reported on six-point scales ranging from 1 'not applicable at all' to 6 'strongly applicable'. Examples of items are: '[To what extent does the following statement apply to you?] during children's play, I make suggestions to enrich their play', […] I extend children's play by joining them' and '[…] during children's play, I add play attributes and materials to extend the play'. Cronbach's alpha of the scale was good (α = .842). Another 8 items addressed specifically teachers' support to pretend and role play, asking them to assess how often they provided particular support on a seven-point scale, ranging from 1 'never' to 7 'always'. Example items are: 'I demonstrate how play objects can be used to signify something else', 'I encourage children to go along with the pretense' and 'I demonstrate how you can take up a role in role play'. Cronbach's alpha of the scale was excellent (α = .922). For the present analysis, one variable was constructed based on the two scales, rescaled on a six point scale. The intercorrelations of the two constituting scales ranged from $r = .627$ ($p < .001$) to $r = .643$ ($p < .001$) on the two measurement occasions.

Emotional support. The scale Emotional support consisted of 6 items, addressing teachers' self-reported sensitivity and responsiveness to children's emotional needs and frequency of positive affective interactions with children. Teachers' answers were reported on seven-point scales ranging from 1 'never' to 7 'always'. Example items are: 'I console children immediately when they are sad, by hugging them or taking them on my lap', 'I hug children or pat them on the head', and 'I lower my position to children's level so that I can look them in the face'. Cronbach's alpha of the scale was good (α = .828).

Inclusive climate. The scale Inclusive climate represented the attention teachers reported to pay in the classroom to diversity and equality. Six items addressed if, and how often, teachers paid attention to important feasts of all cultures and religions represented in their classroom, stimulated collaborative activities of children from diverse backgrounds, emphasized the equality of different cultures and their customs, and emphasized gender equality. Example items are: '[To what extent is the following statement applicable to you?] I pay attention to important festivities and holy days of all cultural and religious groups represented in my classroom' and '[…] I emphasize the fundamental equality of all people regardless of race, color or wealth'. Teachers rated their answers on a five-point scale, ranging from 1 'not applicable at all' to 5 'strongly applicable' Cronbach's alpha of the scale was acceptable (α = .764).

4.3.2 Local educational governance

The assessment of the municipal ECEC policy was conducted by experienced primary school inspectors. The inspectors were trained for ECEC inspections and conducted at least two municipal ECEC governance inspections together with an experienced ECEC inspector. The inspectors interviewed the local policy staff responsible for ECEC policy, interviewed managers of ECEC services, and reviewed ECEC policy documents. The inspectors assessed the municipal policies on 11 aspects; five aspects assessing compliance with the legal requirements, and six aspects corresponding to the coordination and quality assurance task of the municipalities (Table 4.1).

Table 4.1

Dimensions of Compliance With Legal Requirement and Coordination and Quality Assurance

Legal requirements	
Local agreement on the definition of eligible disadvantaged children	Clear definition was formulated in line with the national education equity policy and the definition was well-explained and justified.
Ensuring sufficient outreach	The number of eligible children was known and sufficient supply for these children was created in terms of child places.
Encouragement to use ECEC facilities	Overview of the eligible children who did not use ECEC, implemented targeted measures to encourage eligible children and their parents to participate in ECEC, and agreements with local partners to share the responsibility for reaching out to the children and their parents and to implement effective measures.
Transition from ECEC centers to primary school	Agreements with the local partners in ECEC and primary education about the transition between ECEC and kindergarten departments of primary school to span the entire 2½ to 6 years age range, and about the transfer of information about the child.
Agreements on the results of ECEC	Determined what the results of ECEC should be in terms of child outcomes (e.g., regarding language skills).

Coordination and quality assurance	
Parental involvement	Policy implemented at the municipal level that included collecting information about the targeted population, informing parents about ECEC, providing activities for parent and stimulating parental participation in ECEC centers.
Use of an ECEC curriculum	Encouragement of ECEC centers to work with an officially approved ECEC curriculum, based on evaluations by the National Youth Institute or explicitly justified if the ECEC curriculum used was not officially approved.
Extra care for children	Overview of the care institutions that could be called upon by ECEC centers and primary schools and of the type of care these institutions could provide, agreements for collaboration and responsibility were clear.
Quality assurance system of ECEC and primary school	Shared view on quality and how to assess quality, and implemented a quality assurance system for ECEC and primary education.
Municipal ECEC coordination	Network of ECEC partners was well coordinated. There had to be coordination for the (central) city, as well as for the city districts, boroughs, neighborhoods, etc., as well as for the welfare organizations and school boards. Coordination did not only include ECEC strictly, but it included also the coordination with consultation bureaus, the Youth and Family Center, and the municipal care structure in total.
Systematic evaluation and improvement of ECEC	Local agreements regarding ECEC and attainment of the desired results were evaluated annually, the findings were fed back to the field and any issues for improvement were identified and measures for improvement were implemented.

All aspects were scored on a four-point scale, where a score of 1 stands for ‘inadequate’, 2 for ‘moderate’, 3 for ‘adequate’ and 4 for ‘good’. For two municipalities, the score on the aspect ‘Agreements on the results of ECEC’ was missing. Each aspect specified a number of criteria that had to be met. An aspect was scored as ‘inadequate’ if none of the criteria were met. An aspect was assessed as ‘moderate’ if one or more criteria were met, but others were not. An aspect was assessed as ‘adequate’ if all criteria were sufficiently met. A ‘good’ was given if an aspect was met excessively well and the municipality could serve as an example for others on this aspect.

Based on the assessments, two constructs were created to represent municipal ECEC policy quality: 1) Compliance with legal requirements and 2) Coordination and quality assurance. Three of the monitored aspects (agreement on the definition of eligibility for pre-primary ECEC, active outreach to eligible families and encouragement of participation in pre-primary ECEC) were deemed not relevant as they applied specifically to policies for pre-primary ECEC, and were not included. The internal consistency of the measure Coordination and quality assurance was acceptable (Cronbach's $\alpha = .721$); Cronbach's α of the measure Compliance with legal requirements was .685. To increase the measurement quality, principal components analysis was conducted with a forced two components solution. The two constructs were created as averages of the items weighted by the component scores.

Following our previous study on the relationship between pre-primary ECEC and municipal governance (Van de Kuilen et al., 2023; Chapter 3), an additional construct was created based on 5 items of the full original monitoring instrument to represent local network collaboration under auspices of the municipality. The construct covered aspects such as the use of mission-driven strategies to increase outreach to underprivileged families, the provision of additional care and family support, and the coordination of professional development and quality monitoring across services. The internal consistency of the construct local network collaboration, covering a heterogeneous set of policy actions, was sufficient for the current purpose (Cronbach's $\alpha = .628$).

4.3.3 Control variables

A number of municipal context characteristics and one classroom context characteristic were included to control for possible confounds. Control variables at the municipal level included the *size* of the municipality (defined by the number of inhabitants), the *number of all two- and three-year old children* living in the municipality, the *number of socioeconomically disadvantaged children* eligible for ECEC and the *annual municipal budget* for implementing the educational equity policy in pre-primary ECEC. Because of the high intercorrelations of these variables, we used *size* of the municipality and a combined variable *budget per target child* as control variables. *Classroom composition* was included as a control variable at the classroom level. Teachers reported in the questionnaire the proportion of children in their classrooms with a non-Dutch home language, which is indicative of children's status as first or second generation immigrants and a criterion for being eligible for pre-primary ECEC under the educational equity policy. Teachers' responses were recoded into a dummy variable with the value 0 standing for less than 30% and 1 for 30% or more children in the classroom with a non-Dutch home language, based on previous research where this appeared to be a meaningful cut-off (Leseman & Veen, 2022). There were no data available for control variables at the school and school board level. There were few missing values in the variables of interest. Listwise deletion was applied, resulting in an analysis sample of $n = 843$ at the teacher level (92% of total dataset).

4.4 ANALYSIS

To answer the research questions, the first aim of the analyses was to determine the proportions of variance in the indicators of equity policy implementation in the participating kindergartens that could be allocated at the different levels of the educational governance structure. The second aim was to determine how much of the variance at the municipal level could be explained by the indicators of the local governance quality, controlling for size of the municipality and budget per target child. Group composition was included as a control variable at the classroom level. A series of multi-level linear regression analyses were conducted, using R (Hox et al., 2017; Wickham & Grolemund, 2017). Four levels were distinguished: level 1 concerned the teachers/classrooms (n = 843), which were nested in level 2, the schools (n = 555). The schools, in turn, were nested in level 3, the school boards (n = 216), and the school boards were nested in level 4, the municipalities (n = 110). The average cluster size of the data points nested within schools was 1.52, within the school boards 3.90, and within the municipalities 7.66. Four outcome measures were used in the analyses as dependent variables: Academic curriculum, Guided play, Emotional support and Inclusive climate. As the outcome measures were only weakly to moderately intercorrelated (Table 4.2), we estimated four separate series of models for each outcome measure.

Table 4.2

Intercorrelations of Academic Curriculum, Guided play, Emotional support and Inclusive climate (n=843)

		2	3	4
1	Academic curriculum	.453**	.297**	.226**
2	Guided play		.281**	.285**
3	Emotional support			.412**
4	Inclusive climate			

Note. ** $p < .01$.

The analyses started with an intercept-only model, Model 0. This model was specified to estimate the amount of variance at the different levels of the governance structure and to calculate the intra-class correlations (ICCs). Model 1 included the control variables on the classroom and municipal level. The variables of interest, Compliance with legal requirements and Coordination and quality assurance, were included in Model 2. Because the two ECEC policy measures were highly intercorrelated ($r = .713$, $p < .001$), they were added in separate models (Models 2a and 2b). Finally, Local network collaboration was added separately in Model 3. Relative model fit was compared using the AIC (with a smaller AIC indicating better model fit) and the pseudo R^2 (with a larger R^2 indicating better model fit).

4.5 RESULTS

4.5.1 Descriptives

Table 4.3, the upper panel, presents the mean scores, standard deviations and observed score ranges of Academic curriculum, Guided play, Emotional support and Inclusive climate. Based on the original scale points, academic activities were provided on average between once and several times per week, but note that separate activities included in this scale were more frequently and others less frequently provided. With regard to Guided play, the mean score indicates that teachers considered the use of play enrichment and other forms of guidance on average 'highly applicable' to them. Note again that this may differ between separate forms of guidance. The mean score of Social-emotional support indicates that emotionally supportive teacher behaviors occurred on average 'very often'. Finally, the mean score of Inclusive climate indicates that teachers considered the use of inclusion promoting activities as 'applicable to highly applicable' to them. Regarding the characteristics of the municipalities, in the middle panel of Table 4.3, the large range in the ECEC budget per target child stands out. This large range is not caused by outliers, but rather can be explained by the way these budgets are calculated in the Dutch system: if disadvantages among children are comparatively mild and are more equally distributed over schools, municipalities receive less budget per underprivileged child. Regarding the indicators of the municipal ECEC policy, in the lower panel of Table 4.3, the mean scores indicate on average 'inadequate to moderate' implementation of the (legal) requirements, with small variation between the municipalities.

Table 4.3

Descriptive Statistics of ECEC Quality, Municipal Characteristics and Municipal Governance Indicators

Classroom level variables	**N**	**Mean**	**SD**	**Range**
Academic curriculum	843	4.69	.59	2.76-7.00
Guided play	843	3.91	.73	1.00-6.00
Emotional support	843	6.14	.61	4.00-7.00
Inclusive climate	843	3.71	.70	1.00-5.00
Municipal characteristics	**N**	**Mean**	**SD**	**Range**
Size (number of inhabitants)	110	81,458.24	109,946.90	5,526-799,278
Budget per target child (in €)	110	7,116.74	5,528.67	81.59-22,082.66
Municipal policy measures	**N**	**Mean**	**SD**	**Range**
Compliance legal requirements	110	1.60	.40	1.19-2.78
Coordination and quality assurance	110	1.60	.23	1.17-2.15
Local network collaboration	110	1.69	.27	1.30-2.47

4.5.2 Multi-level analysis

Academic curriculum. Table 4.4 shows the results of the multi-level analysis with Academic curriculum as dependent variable. Model 0 is the random intercept model and reveals that 23.8% of the variance in the implementation of an academic curriculum can be attributed to the school level, 0.0% to the school board level and 5.3% to the municipal level. The remaining variance, 70.9%, is allocated at the teacher/classroom level and may also reflect random measurement error. Model 1 includes size and municipal ECEC budget per child (municipal level) and classroom composition (classroom level) as control variables. The results show that only classroom composition is significantly associated with the implementation of an academic curriculum (β = .306, p < .050): more children with a non-Dutch home language is associated with a stronger academic emphasis in classroom practice. Adding the control variables increases the AIC to 2380.83, indicating worse model fit, while the amount of explained variance is very small (Pseudo R^2 = .004). Models 2a and 2b include the indicators of the municipal ECEC policy. The results show that none of the indicators are significantly related to Academic curriculum. Adding these variables to the model increases the AIC, indicating worse model fit (Model 2a: AIC = 2386.53; Model 2b: AIC = 2386.24), while the explained variance remains neglectable (Model 2a: R^2 = .001; Model 2b: R^2 = .002). Model 3 includes the construct Local network collaboration. Local network collaboration is not significantly related to the implementation of an academic curriculum. Adding Local network collaboration to the model leads to an increase of the AIC, while the explained variance is again neglectable. Based on the comparison of model fit indices, Model 0 is considered the final model, indicating none of the included control and predictor variables added significantly or substantially to the explanation of the variance in the implementation of an academic curriculum. Note, however, the consistent significant effect of classroom composition across the tested models.

Table 4.4

Various multilevel models on Academic curriculum in ECEC classrooms

Academic Curriculum	**Model 0**	**Model 1**	**Model 2a**	**Model 2b**	**Model 3**
Intercept	-.022	-.012	-.011	-.013	-.014
Municipal Size		.065	.065	.068	.060
Municipal ECEC-budget per child		.010	.006	.020	.031
Classroom composition		.306*	.305*	.303*	.305*
Coordination and quality assurance			.008		
Compliance Legal Requirements				-.027	
Local network collaboration					-.035
AIC	2372.71	2380.83	2386.53	2386.24	2386.25
Variance partitioning ICC					
School level	23.8%				
Board level	0.0%				
Municipal level	5.3%				
Explained variance pseudo R^2		.004	.001	.002	.003

Note. *** p = < .001; ** p < .010; * p < .050; ^ p < .100. β: regression coefficient. (Scale dependent variable: 2.76-7.00).

Guided play. Table 4.5 presents the results of the multi-level analysis with Guided play as dependent variable. The results of Model 0 indicate that 34.8% of the variance in the use of strategies to enrich and extend children's play can be attributed to the school level, 0.1% to the school board level and 2.0% to the municipal level. The remaining variance, 63.1%, is at the teacher/classroom level and may also reflect random measurement errors. The results of Model 1 show that classroom composition is trending significantly related to the dependent variable (standardized regression coefficient β = .244, p < .100): more children with a non-Dutch home language in the classroom is associated with more guidance of children's play. The other control variables are not significantly related to play, nor are the indicators of the municipal ECEC policy. Based on the comparison of the model fit indices, Model 0, without explanatory variables, is considered the final model. Note that also with regard to Guided play, classroom composition is the only significant predictor.

Table 4.5

Various multilevel models on Guided play in ECEC classrooms

Guided play	**Model 0**	**Model 1**	**Model 2a**	**Model 2b**	**Model 3**
Intercept	-.026	-.040	-.039	-.040	-.038
Municipal Size		.053	.041	.055	.063
Municipal ECEC-budget per child		-.058	-.070	-.058	-.089
Group composition		.244^	.243^	.243^	.244^
Coordination and quality assurance			.049		
Compliance Legal Requirements				-.006	
Local network collaboration					.046
AIC	2356.86	2368.70	2373.85	2374.45	2373.93
Variance partitioning ICC					
School level	34.8%				
Board level	0.1%				
Municipal level	2.0%				
Explained variance pseudo R^2		-.001	-.000	-.003	-.001

Note. *** p = < .001; ** p < .010; * p < .050; ^ p < .100. β: regression coefficient. (Scale dependent variable: 1.00-6.00).

Emotional support. Table 4.6 gives the results of the multi-level analysis with Emotional support as dependent variable. Model 0 shows that 16.8% of the variance in the emotionally supportive activities provided by the teachers, according to their self-reports, can be attributed to the school level, 0.0% to the school board level and 0.3% to the municipal level. The remaining 82.9% of the variance is located at the teacher/classroom level and may also reflect random measurement errors. The results of the next models show that none of the control variables, nor the indicators of the municipal ECEC policy are significantly associated with the reported emotional support. Adding the control and predictor variables, moreover, worsens the model fit. Model 0, therefore, is considered the final model.

Table 4.6

Various multilevel models on Emotional support in ECEC classrooms

Emotional support	**Model 0**	**Model 1**	**Model 2a**	**Model 2b**	**Model 3**
Intercept	-.001	-.010	-.011	-.011	-.012
Municipal Size		-.020	-.017	.122836	.193060
Municipal ECEC-budget per child		-.005	-.004	.003	.060
Classroom composition		.151	.153	.145	.150
ECEC Coordination			-.042		
Compliance Legal Requirements				-.026	
Local network collaboration					-.095^
AIC	2412.12	2427.17	2432.63	2433.04	2429.08
Variance partitioning ICC					
School level	16.8%				
Board level	0.0%				
Municipal level	0.2%				
Explained variance pseudo R^2		-.003	-.003	-.005	.004

Note. *** p = < .001; ** p < .010; * p < .050; ^ p < .100. β: regression coefficient. (Scale dependent variable: 4.00-7.00).

Inclusive climate. Table 4.7 shows the results of the multi-level analysis with Inclusive climate as dependent variable. Based on the random intercept Model 0, 17.7% of the variance in teachers' providing of (culturally) inclusive practices can be attributed to the school level, 3.7% to the school board level and 4.3% to the municipal level. Most variance, 74.3%, is at the teacher/classroom level and may also reflect random measurement errors. The results of Model 1 show that both the municipal ECEC budget per child (β = .240, p < .010) and the classroom composition (β = .480, p < .001) are significantly related to the teacher-reported inclusive classroom practices. The AIC of Model 1 decreases compared to Model 0, while the explained variance increases (Pseudo R^2 = 0.048), both indicating a better model fit. The results in Table 4.7 furthermore show that none of the indicators of the municipal ECEC policy are significantly related to creating an inclusive climate in the classroom and that adding these indicators decreases the model fit. Model 1, therefore, is considered the final model. In this model, municipal budget per child and classroom composition are significantly positively related to an inclusive classroom climate.

Table 4.7

Various multilevel models on Inclusive climate in ECEC classrooms

Inclusive climate	Model 0	Model 1	Model 2a	Model 2b	Model 3
Intercept	-.061	-.039	-.039	-.039	-.038
Municipal Size		-.103	-.092	-.099	-.103
Municipal ECEC-budget per child		.240**	.247**	.245**	.249**
Classroom composition		.480***	.481***	.479***	.480***
Coordination and quality assurance			-.030		
Compliance Legal Requirements				-.013	
Local network collaboration					-.013
AIC	2381.26	2366.41	2372.08	2372.20	2372.32
Variance partitioning ICC					
School level	17.7%				
Board level	3.7%				
Municipal level	4.3%				
Explained variance pseudo R^2		.048	.046	.046	.046

Note. *** p = <.001; ** p < .010; * p < .050; ^ p < .100. β: regression coefficient. (Scale dependent variable: 1.00-5.00).

4.6 CONCLUSION AND DISCUSSION

4.6.1 Conclusion

In this chapter, we examined how key characteristics of the Dutch educational governance mode are related to the successful implementation of the national early educational equity policy in the kindergarten departments of primary schools. The two questions addressed in this study were: *(1) Are there systematic differences in the implementation of the national educational equity policy in kindergarten between classrooms, schools, school boards and municipalities in the Netherlands? (2) To what extent are the differences in the implementation of educational equity policy in kindergarten between municipalities related to characteristics of the municipal educational governance?*

To answer these questions, we merged data on teacher-reported classroom practices in kindergarten from a large-scale child-level national cohort study and data on the policies of municipalities from the ECEC-policy monitor of the Dutch Inspectorate of Education. We focused on four indicators of effective educational equity policy, based on emerging consensus in the field and multiple recent studies (see above): the implementation of an age-appropriate academic curriculum; the use of guided play; the social-emotional support provided to children; and the creation of a culturally inclusive classroom climate. Multilevel-

regression analysis was applied, first, to decompose the variance in the dependent measures into components associated with the most important levels of the decentralized Dutch educational governance structure (teacher/classroom, school, school board, and municipality) and, next, to explain in particular the variance at the municipal level by indicators of the municipal ECEC policy, given the key role municipalities are supposed to play in implementing the national educational equity policy at the local level. The latter included also an indicator of equity mission-driven collaborative local network governance, which in previous studies was found to be related to the educational process quality and other relevant quality characteristics of pre-primary ECEC (Van de Kuilen et al., 2023; Van de Kuilen et al., in prep.; Chapters 3 and 5).

With regard to the first research question, the results showed systematic variance in the implementation of educational equity policy in kindergarten classrooms, based on the four indicators. Contrary to our expectations, however, and contrary to the responsibilities and concomitant power attributed per law to the school boards (for the overall educational governance and quality assurance) and the municipalities (for the coordination of the educational equity policy), very limited to hardly any variance was associated with the school boards or the municipalities. We only found systematic variance in the implementation of the educational equity policy in kindergarten at the school level: 19.5% of the variance in academic curriculum, 32.4% of the variance in guided play, 16% of the variance in emotional support, and 15.3% of the variance in inclusive climate was located at the school level. By far the largest proportion of the variance was located at the teacher and classroom level, ranging from 63.1% (guided play) to 82.9% (emotional support).

With regard to the second research question, none of the municipal policy indicators were found to be associated with variance at the municipal level. Contrary to our expectations (based on previous studies), this also held true for the indicator of 'soft', mission-driven collaborative local network governance. A likely explanation is that only limited variance in the indicators of equity policy implementation was allocated at the level of the municipalities. Thus, there was only very limited variance to be explained by the local governance indicators. Note that the largest, though still small, proportions of municipal level variance were found in the implementation of an academic curriculum (5.3%) and the creation of a culturally inclusive climate (4.3%), typically spearheads of the educational equity policy. This may suggest at least some correlation between the municipal level and the indicators of equity policy implementation, yet this was not captured by our current measures of the local governance approach. The present results are in line with another study, using more recent data and a more elaborate measurement of local collaborative governance (Van de Kuilen et al., in prep.; Chapter 5), which suggested a limited relation between the municipality and primary school kindergartens compared to pre-primary ECEC, with one exception: establishing curricular and pedagogical continuity between pre-primary ECEC and primary school kindergartens. The latter involves encouraging collaboration between both components

of the ECEC system, where municipalities can and do fulfil a coordinating role. The present study did not include a measure of schools' collaboration with pre-primary ECEC.

The variance associated with the school boards, the most important level within the current mode of strongly decentralized and autonomy-granting educational governance in the Netherlands (Hooge & Honingh, 2014; Waslander, 2016), was overall smaller than found for the municipalities, ranging from 0% (academic curriculum, social-emotional support) to 0.1% (guided play) to 3.7% (inclusive climate). Although the lack of variance associated with the school boards could indicate that all school boards did equally well and used highly similar strategies in steering the schools in their jurisdiction, this seems unlikely. The very limited variance associated with the school boards more likely points to a lack involvement of the boards in the implementation of the educational equity policy. The apparent lack of involvement of the school boards in steering the implementation of key aspects of the educational equity policy in their schools is striking, given that the boards receive additional subsidy for combating the persistent inequity in Dutch primary education (as part of the first pillar of the national educational equity policy; Leseman & Slot, 2020). Studies on the Dutch school boards suggests that school boards are aware of the educational quality of their schools, but that it is not clear how they steer on quality (Blokdijk & Goodijk, 2012; Hooge & Honingh, 2014). The somewhat larger variance at the school boards level in inclusive climate (3.7%) could indicate that school boards do take up a role in dealing with cultural diversity and the associated ideological issues. This might be explained by the fact that school boards mostly discern themselves by confessional or philosophical denomination, that is, on an ideological basis.

We included a number of control variables in our analyses. The control variables at the municipal level (size of the municipality, amount of subsidy per target child) were mostly not associated with the four indicators of educational equity policy implementation in kindergartens, likely because there was little variance to be explained at the municipal level. One exception was the small significant predictive effect of amount of subsidy per target child the municipalities receive (as part of the second pillar of the national educational equity policy; Leseman & Slot, 2020) on inclusive climate, with 4.7% variance located at the municipal level. This may indicate that, with regard to cultural inclusion policy, municipalities have some influence on schools if disadvantages are severe and concentrated in particular areas and schools within the municipality (leading to a higher amount of subsidy per target child in the Dutch system).

In contrast to this, the measure of classroom composition, indicating whether more than 30% of the children had a non-Dutch home language, which was included as a control variable at the classroom level, showed consistently small to medium strong positive associations with the implementation of an academic curriculum, the use of guided play and, in particular, the creation of a culturally inclusive classroom climate (with a trending similar pattern also for social-emotional support). This finding may suggest that teachers and schools

are responsive to the actual educational needs of their children and show better implementation of the educational equity policy (in so far as our indicators attest to this) the more socioeconomic and cultural disadvantages cumulate in their classrooms. The finding is in line with other reports on both pre-primary ECEC centers and primary schools in the Netherlands that reveal a higher educational quality (based on classroom observations and teacher self-reports) the larger the share of underprivileged children (Leseman et al., 2017; Leseman & Veen, 2022).

4.6.2 Discussion

National educational equity policies increasingly focus on ECEC for combatting early emerging educational disadvantages (Bradbury et al., 2015; Passaretta et al., 2022) and multiple studies have shown that such a focus can indeed contribute to greater equity in society in long term (for recent international reviews, see Dietrichson et al., 2020; Nores & Barnett, 2010). However, in most countries, the system for the education and care of children until formal instruction starts, is complex, fragmented, partly targeted and partly universal, partly privatized and partly under public control (OECD, 2017), resulting in many challenges for the implementation of educational equity policies across early childhood (Kauerz, 2018).

In the present study we focused on the Dutch ECEC system for 4 to 6-year-olds, which is part of the primary school system and governed under the primary education legislation. We examined how the current educational governance mode of the Netherlands is related to the local implementation of the national educational equity policy. The Dutch mode of educational governance is characterized by a strong decentralization of the governance to local school boards, a high degree of autonomy for school boards, schools and teachers with regard to curriculum, pedagogy, assessment and implementation of the educational equity policy, and a limited (and, indeed, contradictory) role of the municipalities. What do the current findings imply?

The present set of indicators used to assess the implementation of the national educational equity policy in kindergarten classrooms, does not allow for an overall evaluation in absolute terms of the effectiveness of the current educational governance. For example, the implementation of an academic curriculum was found to be at a particular mean level, but it is unknown whether this level would count as poor, sufficient or excellent in view of combatting early educational inequity. Consider, however, the following. In 2020, the Inspectorate of Education reported that there was a clear need for improvement of kindergarten education quality (Inspectie van het Onderwijs, 2020). In addition, early emerging educational inequity is a persistent phenomenon in the Netherlands, and especially regarding reading comprehension it is hardly, if at all, reduced during primary school (Leseman & Veen, 2022; Passaretta et al., 2022). Lastly, there is no indication in successive policy evaluations that the additional subsidies for combating educational inequity, which are added to the block grants the school boards receive, are used effectively (Centraal Planbureau, 2017; Leseman & Slot,

2020; McKinsey & Company, 2020; Mulder & Meijnen, 2013). Overall, we propose that the current mode of educational governance is inadequate to increase educational equity.

There is still very limited knowledge available to answer the question which mode of educational governance is optimal for promoting educational equity (Mintrom & Walley, 2011; OECD, 2010; Wilkoszewski & Sundby, 2014). This pertains in particular to the consequences of decentralization of the educational governance to local school boards (for a review, see Honingh et al., 2020). While decentralization of the educational governance seems an irreversible trend across the globe (Daun, 2011), the particular form of decentralization chosen may matter. Suggestive findings based on country comparisons of student achievement data (Mintrom & Walley, 2011; OECD, 2010) seem to indicate that the combination of (1) a high degree of autonomy for teachers and schools to enable adaptation to students' needs; (2) a strong role for municipalities to coordinate collaboration between schools, pre-primary ECEC centers and other social services based on a shared equity and inclusion mission, also to avoid competition between schools (or school boards); and (3) limits to the freedom of school choice for parents to prevent school segregation, holds most promise.

The Dutch educational governance mode fits these criteria only partly. Teachers and schools have a high degree of *de facto* autonomy and, indeed, were found to be responsive to students' needs in the current study. This autonomy is *de facto* because, per law, autonomy is allocated at the level of the school boards, who, however, seem to exert minor influence on teachers and schools (in the kindergarten period), as was found in the present study and confirmed in other studies (Inspectie van het Onderwijs, forthcoming). The municipalities are, per law, given a coordinating role, especially with regard to the implementation of the national educational equity policy. Municipalities indeed seem to take up this role more or less effectively in pre-primary ECEC (Van de Kuilen et al., 2023; Van de Kuilen et al., in prep.; Chapters 3 and 5). However, with regard to primary schools they lack the fiscal and administrative means (in contrast to the pre-primary sector) to effectively coordinate policy implementation in schools. Moreover, municipalities differ in their governance strategies, as there are no requirements or guidelines beyond compliance to a set of formal criteria, monitored by the Inspectorate of Education. Likely, not all modes of local governance are equally effective (Van de Kuilen et al., in prep.; Chapter 5).

4.6.3 Limitations

Several limitations to the present study should be mentioned. Although the current sample of primary school kindergarten departments represented relevant variation in terms of student population, region, and urbanization, the sample was not nationally representative and schools with a high representation of underprivileged students were deliberately oversampled given the purpose of the pre-COOL cohort study. Sample recruitment and data collection, moreover, suffered from considerable non-response, which may have biased the results. Merging the

schools sample with the municipalities sample resulted in a relatively small sample at the municipal level, which may have underpowered the analysis. The implementation of the national educational equity policy in kindergartens was assessed based on teacher self-reports. The additional use of classroom observations would certainly have strengthened the study. The selection of items to construct the indicators reflects, to the best of our knowledge, the growing consensus regarding effective ECEC, but may raise controversy. The monitoring instrument of the Inspectorate of Education to assess the quality of local educational policy focused on compliance with formal procedures and agreements, in line with the Dutch governance approach to ECEC. However, this may have resulted in noisy or irrelevant indicators, which failed to provide insight into the actual implementation of local ECEC policies. The study lacked more detailed data at the school and school board level that could have been used as control or predictor variables. However, given the main aims of the present study, to estimate the variance components associated with main levels of the Dutch educational governance structure and to specifically look into the relationships with municipal policies, this may have been acceptable. Finally, the use of a correlational design does not allow for conclusions regarding the causal direction of the predictive relationship found in the exploratory analysis. Nonetheless, we believe that the current findings are relevant to the issue of effective educational governance regarding educational equity. Further research into alternative effective governance models, such as through network governance of school boards, municipalities, and childcare providers to improve the continuous implementation of educational equity polies in early childhood education is needed.

5 COLLABORATIVE GOVERNANCE AND ECEC QUALITY

Author contribution: **L. van de Kuilen**: Conceptualization, Methodology, Formal analyses, Writing. **P. Leseman**: Conceptualization, Methodology, Formal analyses, Review & editing. **I. de Wolf**: Review & editing.

Abstract

A continuous high quality early education program requires collaboration and coordination between ECEC programs and services at the local level. In the present chapter, we addressed the question how local governments, in a decentralized, split and hybrid system, like the Dutch ECEC system, cope with the challenges of ensuring high ECEC quality, supporting and involving parents, and strengthening the continuity between pre-primary ECEC centers and primary school kindergarten. We used data from studies conducted in 2016 and 2019 by the Dutch Inspectorate of Education among pre-primary ECEC centers and kindergartens of primary schools, and data on local network governance from a study by the Inspectorate in 2020. Without a priori hypotheses on particular configurations of local networks or its influence on ECEC quality, we conducted a cluster analysis to identify clusters of municipalities and related the identified clusters to four ECEC quality measures: emotional process quality, educational process quality, parent involvement, and pedagogical continuity. We found four distinct configurations of local network governance and statistically significant associations between the particular network governance configuration and three of the four quality measures (educational process quality, parent involvement and pedagogical continuity) in the sample of pre-primary ECEC centers and one in the sample of kindergartens (pedagogical continuity), with trending similar results for the other quality aspects as found for pre-primary ECEC. The governance mode characterized by formalized, collaborative, equity mission-driven, interactive networks with strong inspirational governance, was found to be strongest positively associated with ECEC quality.

5.1 INTRODUCTION

Early childhood education and care (ECEC) programs, whether targeted to specific groups at risk or universally accessible, can contribute to children's cognitive and social-emotional development in the short and long term, and potentially decrease early education gaps between children from privileged and underprivileged backgrounds, as has been demonstrated in numerous studies across the globe (for reviews, see Elango et al., 2015; Nores & Barnett, 2010; McCoy et al., 2017; Melhuish et al., 2015; for a recent critical review, see Duncan et al., 2022). However, the short and long term outcomes critically depend on the emotional and educational process quality of the programs provided, referring to the implementation of emotionally supportive, child-centered and play-based pedagogies along with relevant, developmentally appropriate curriculum contents (Duncan et al., 2022; Melhuish et al., 2015). In addition, working with parents, supporting them and involving them in educational partnerships to the benefit of their children is regarded a valuable addition that is reported to enhance and sustain the developmental effects of ECEC, although the evidence is not fully conclusive (e.g., Blok et al., 2005; Grindal et al., 2016; Joo et al., 2020; Sheridan et al., 2011). Furthermore, still scarce studies suggest that a longer duration of a continuous program until grade 1, rather than higher intensity in terms of hours per week, is associated with larger positive effects (Felfe & Zierow, 2018; Love et al., 2005; Melhuish et al., 2004).

Despite the abundant evidence for positive effects of ECEC on children's development and subsequent school achievement, studies indicate that immediate program effects tend to fade within a few years post-intervention (for a review, see Bailey et al., 2017). Possible explanations include the discontinuity of program quality after transition from pre-kindergarten to kindergarten and from kindergarten to primary school (Jenkins et al., 2018; Lee & Loeb, 1995; Stipek et al., 2017). Generally, negative effects of transitions in early childhood on children's well-being, social-emotional adaptation and learning have been reported in several studies (Ansari & Pianta, 2018; McDermott et al., 2016; Vitiello et al., 2022) and have led to policies in many countries to, at least, improve the coordination between separate programs and to smooth transitions between them (Shuey et al., 2019).

Early childhood education and care for children up to age 6 or 7, when formal instruction in primary school starts, is in most countries provided in a split system of targeted and universal half day and full day programs for children until age 4 or 5 and universal kindergarten for children from that age until first grade of primary school (OECD, 2006, 2016). In split systems, providing a continuous high quality early education program that spans this age range and avoiding or, at least, mitigating disruptive transitions is especially challenging and requires collaboration and coordination between the separate ECEC programs at the local level (Kauerz, 2018). Involving and supporting parents who have to deal with the hassles and stresses of material deprivation and other risk factors or who are recent immigrants or refugees, presents another challenge and requires additional collaboration and coordination between ECEC and organizations that provide social services to children and

families at the local level (Anderson-Butcher & Ashton, 2004). Yet, collaboration and coordination between programs and services at the local level is an understudied topic in ECEC research (Kauerz, 2018).

The present study aims to fill this gap by examining local collaboration in the split Dutch ECEC system for children from 0 to 6 years of age and in particular by addressing the question how local governments, in a decentralized, split, and hybrid system, cope with the challenges of ensuring high quality, supporting and involving parents, and strengthening the pedagogical continuity between pre-primary ECEC and primary school kindergartens.

5.1.1 ECEC in the Netherlands

The Netherlands has a split, hybrid system for early childhood education and care for different age groups in the age range of 0 to 6 years, when formal instruction in primary school starts, with different funding systems and different government bodies being legally responsible (for overviews, see Knijn & Lewis, 2017; Slot, 2018). Full day childcare for children from 0 to 4 years of age, to support parents in combining care and work, and half day pre-kindergarten education for 2.5 to 4-year-old children from underprivileged communities is provided by both for-profit and not-for-profit private childcare centers. At age 4, children in the Netherlands are eligible for free of charge full day kindergarten which is part of the publicly funded primary school system. Kindergarten is compulsory from age 5, but participation is already nearly 100% at age 4 (OECD, 2016).

In 2010, legislation was implemented to harmonize the Dutch ECEC sector for under fours (OKE Act; Ministerie van Onderwijs, Cultuur en Wetenschap, 2010). A single statutory quality framework was introduced for all types of ECEC, regardless of the legal entity of the organization and type of funding. The harmonized quality framework specifies age-dependent equal structural quality, health and safety conditions, defines equal developmental goals and global curriculum guidelines for all ECEC services, and emphasizes the importance of continuous trajectories of development and learning across the transition to primary school. Within the 2010 OKE Act, municipal governments are given a leading role in the implementation of the national educational equity policy for early childhood. Municipalities have to set up agreements with ECEC providers regarding the enrollment of children of underprivileged backgrounds, to distribute subsidies following these children, to assure high quality provision for them, to implement policies to support and involve parents, and to promote continuity of pedagogy and curriculum between pre-primary ECEC and primary school kindergartens.

In two previous studies, using data collected in the period 2011-2014, we found indications that a strategy of ‘soft’ governance, was significantly associated with higher educational process and curriculum quality in pre-primary ECEC for 0 to 4-year-old children (Van de Kuilen et al., 2023; Chapter 3), but not in primary school kindergartens for 4 to 6-year-old children (Van de Kuilen et al., in prep.; Chapter 4). Regarding primary school

kindergartens, the variance in several indicators of curriculum quality was found to be almost exclusively located at the school and classroom level, only to a very limited extent at the municipality level (max. 5% of the variance in one indicator, less in other indicators), indicating a limited grasp of the municipal government on the quality of kindergartens. In addition, a recent analysis of child data from a national cohort study found that, based on conventional benchmarks of low *vs*. high educational process and curriculum quality, less than one-fifth of the children experienced constant high quality education and care before and after the transition from a local pre-primary program to a local primary school kindergarten program, indicating overall low pedagogical and curricular continuity between the two programs at the local level (Leseman & Veen, 2022).

In the present study, we addressed the local governance of the Dutch split ECEC system again but with a larger and more recent data set, and with a further elaborated theoretical model of local collaborative governance.

5.1.2 Collaborative network governance

Network governance is a general concept in organization and public administration sciences to address the potential advantages of multi-organizational governance over traditional hierarchical governance or simple free market competition (Provan & Kenis, 2008). Networks of organizations and appropriate network governance are seen as potentially better capable to tackle complex social issues that demand multilateral coordination of different agencies across traditional sectors, such as persistent social inequalities that arise from multiple risk factors (Bryson et al., 2015). A defining key characteristic of networks is the equality and interconnectedness of partners, a predominance of cooperation, and softer forms of governance than in hierarchies (Turrini et al., 2010).

Provan and Kenis (2008) distinguish three basic forms of network governance. *Shared governance* refers to networks in which every organization interacts with every other organization in the network based on symmetric power relations, without a central formal administrative entity. *Brokered governance* refers to networks in which organizations interact mainly with a central 'broker' organization and have limited direct interaction with other organizations, while the leading organization can govern the network hierarchically with asymmetric power. The third form is the *network administrative organization governance,* or NAO governance, in which a separate administrative entity (NAO), external to the partners that deliver the services, governs the network. This often is a local government body, for example the education department of the municipality board, who interacts with all partners in the network and has the possibility of distributing funds.

Each network governance form has its own strengths and weaknesses, depending on several contingencies. The larger the number of participants, the less a priori consensus regarding the goals or mission and the more complex the collective task, the more the brokered forms of network governance will be efficient and effective compared to shared

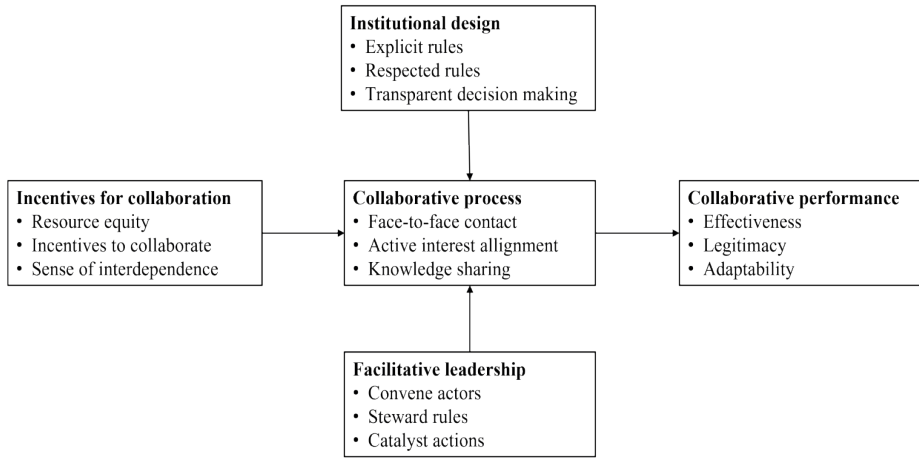
governance (Provan & Kenis, 2008; Turrini et al., 2010). Networks can suffer from tensions that call for network governance, for instance tensions between the efficiency *vs.* inclusiveness of decision making, the internal needs (interests of individual organizations) *vs*. external legitimacy (e.g., towards funding agencies), between competition and collaboration, and between flexibility and stability (being able to quickly adapt, but also endorsing long term goals and long term relationships). In larger, hybrid networks that cross sectoral boundaries, NAO governed networks seem the best option to deal with these tensions (Dagnino et al., 2016; Page et al., 2015; Provan & Kenis, 2008).

Related to this, based on a systematic review of studies on network effectiveness in public services, Turrini et al. (2010) identified three clusters of factors that determine network effectiveness: (1) network structure and processes, (2) network governance, and (3) network context. Regarding (1), structure and processes, networks with a NAO, strong integration (i.e., intensive interaction between partners), in combination with formalization of procedures, common goal setting, centralized communication and information sharing, joint staff activities, and measuring and providing feedback on performance are associated with higher effectiveness. Regarding (2), network governance, effectively steering networks first of all requires a shared mission and basic strategy on how to realize the mission. The capability to build up commitment to the shared mission is a key characteristic of effective network governance. Creating trust, norms of cooperation, and strong interorganizational links also positively influence network effectiveness. Regarding (3), the network context, both a financially stable and supportive context, with sufficient capacity to lead the network, and responsiveness of the network to the central issues in the local community, are related to network effectiveness.

Similar accounts of network effectiveness have been proposed by other authors (cf. Ansell & Gash, 2008; Bryson et al., 2015; Emerson & Nabatchi, 2015). For the purpose of the present study, we followed a recent integration by Douglas et al. (2020), who distinguish five components to describe and evaluate the functioning of networks (see Figure 5.1). The first component, Incentives for collaboration, refers in particular to characteristics of organizations prior to their decision to participate in a network such as their funding, expected rewards, and sense of independence. For this component, no data were available in the present study. Instead, we focused specifically on: Institutional design, referring to the structure of the network and degree of formalization of rules and procedures; Collaborative process, referring to the interactions among the network partners and aligning partners' individual interests with a shared mission; and Facilitative leadership, referring to convening partners, leading the network, and in particular motivating and inspiring the network. Finally, the fifth component, Collaborative performance, was in the present study operationally defined in terms of four key quality aspects of the local ECEC system (to be elaborated below).

Figure 5.1

Roadmap for Achieving Collaborative Performance (Douglas et al., 2020)



5.1.3 Current study

In the current study, we explored to what extent the collaborative governance framework outlined above could be applied to explain differences between Dutch municipalities in how well they cope with the challenges of providing high emotional and educational process quality early childhood education and care for children from 2 to 6 years of age, promote parent support and parent involvement, and ensure pedagogical continuity between pre-primary ECEC and kindergarten education in primary schools. Without strong a priori expectations, we presupposed that aspects of the institutional design, collaborative processes and leadership of the local network of services would reveal particular configurations that would typify how municipalities organize and govern the local services network. Given that to date, to the best of our knowledge, no studies adopted a collaborative network governance framework to explain variation in aspects of quality of ECEC and kindergarten education, we had no specific hypotheses regarding the number and structure of the different configurations that would be found.

We further presupposed, based on our previous study (Van de Kuilen et al., 2023; Chapter 3), that the identified configurations would differ with regard to the quality aspects examined in this study, but we had no specific hypotheses about the type of network that would be strongest positively (or negatively) associated with quality. Using data on quality from studies conducted by the Dutch Inspectorate of Education among pre-primary ECEC

centers and kindergarten departments of primary schools in 2016 and 2019, and data on local network governance from a study by the Inspectorate among municipalities in 2020, we addressed the following research questions:

1) *Which configurations of institutional design, collaborative process and leadership can be found in the local networks of services in Dutch municipalities that are in charge of implementing the national early childhood educational equity policy?*
2) *How are these configurations related to the collaborative performance of the pre-primary ECEC centers and primary school kindergartens, who are core partners in these local networks, regarding emotional and educational process quality, parent involvement and pedagogical continuity?*

5.2 METHOD

5.2.1 Participants: ECEC centers and kindergartens

In 2016, the Inspectorate conducted a study on the quality of ECEC in the 37 largest Dutch municipalities (number of inhabitants ranging from 72,849 to 862,965). In each of these municipalities, a random sample of 15 percent of the local ECEC facilities were examined: in total 122 pre-primary ECEC centers for 0 to 4-year-olds and 101 kindergartens for 4 to 6-year-olds. In addition, a random sample of 153 pre-primary ECEC centers was drawn in the remaining 353 municipalities. No additional sample of kindergartens was drawn. In 2019, the Inspectorate conducted another study on the quality of ECEC. For this survey, a stratified sample of 248 pre-primary ECEC centers and 73 primary school kindergartens were inspected. For ECEC centers, stratification by region, municipality size, and ECEC center size was used. For kindergartens, two-way stratification was used: by region and by school size. Given the distribution over regions and degrees of urbanization, the sample of ECEC centers was considered nationally representative. Combining both datasets resulted in a sample of 534 pre-primary ECEC centers and 174 kindergarten departments of primary schools. Sixteen ECE centers and 5 kindergartens were surveyed in both 2016 and 2019, but given the time lapse treated as independent units. Pre-primary ECEC centers and kindergartens from larger municipalities (53.8%) are slightly overrepresented in the sample (the Netherlands: 41.0%)

5.2.2 Participants: Municipalities

Each year, the Dutch Inspectorate of Education surveys municipalities to monitor compliance with the legal requirements for implementing the national early childhood education and care policy at the local level. In 2020, a set of questions were added to the annual standard questionnaire to address local network governance. The questionnaire was completed by representatives of all, by then, 355 Dutch municipalities. Merging the data of the municipal

network survey with the quality data, resulted in a sample of 534 ECEC centers and 174 kindergartens nested in 248 municipalities. In 8 municipalities, no ECEC centers were inspected, but only kindergartens. In 179 municipalities, no kindergartens were inspected, but only pre-primary ECEC centers.

5.3 MEASURES AND PROCEDURES

5.3.1 Quality of ECEC and kindergarten

Pre-primary ECEC centers and primary school kindergartens were inspected by experienced primary school inspectors. The inspectors were specifically trained for ECEC inspections and conducted at least two ECEC inspections together with an experienced ECEC inspector. The assessment included a classroom observation of about 45 minutes and semi-structured interviews with teachers, coaches, location managers, and parents. Quality was assessed on 24 indicators, concerning the pedagogical and educational support provided to the children in daily classroom interaction processes (based on observations and interviews), involvement of parents (based on interviews), and the collaboration of the pre-primary ECEC centers with the primary school kindergartens to facilitate a smooth transition of children from pre-primary ECEC to primary kindergarten (based on interviews). Each indicator described one or more concrete criteria that had to be met and was scored on a four-point scale, where a score of 1 stands for 'inadequate', 2 for 'moderate', 3 for 'adequate' and 4 for 'good'. An indicator was scored as 'inadequate' if none of the criteria were met, as 'moderate' if one or more criteria were met, but others were not, and as 'adequate' if all criteria were sufficiently met. A 'good' was given if all criteria of an indicator were met excessively well and the center or kindergarten could serve as an example for others on this indicator.

The scale *Emotional support* was based on an existing, widely used quality assessment instrument (e.g., Caregiver Interaction Profile; Helmerhorst et al., 2014) but adapted for use by the Inspectorate and consisted of 5 indicators (Cronbach's $\alpha = .795$) to assess whether teachers (1) showed respectful, autonomy supporting behavior towards children, (2) showed sensitivity and responsivity to children's needs, (3) provided structure and set limits to children's behavior, (4) stimulated children's personal and social competence development, and (5) promoted social interactions among children. The scale *Educational support* was also partly based on existing quality instruments (e.g., CLASS, ITERS/ECERS-R; Harms et al., 2005; La Paro et al., 2011) and partly on instruments for monitoring instruction quality of primary schools. The scale consisted of 5 indicators ($\alpha = .864$) to assess whether (1) the curriculum of provided educational activities increased in difficulty over time and was differentiated to match children's ability levels, (2) the furnishing and decoration of the classroom was attractive, (3) the daily program consisted of focused instructional activities, (4) children's play was guided and enriched, and (5) children were stimulated to adopt self-regulatory task-approach strategies. The scale *Parent involvement* consisted of 7 indicators ($\alpha = .829$), including as example indicators whether there was an explicit policy to involve

parents, parents were invited to participate in educational activities at the center or kindergarten and encouraged to conduct similar activities at home, and measures were taken to overcome communication problems in case of non-Dutch speaking parents. Finally, the scale *Pedagogical continuity* was also based on 7 indicators (α = .907), with as example indicators whether pre-primary ECEC centers and neighboring kindergarten departments of primary schools collaborated, coordinated their curriculum of activities, general pedagogical approach and mode of interaction and communication with parents, and assured a 'warm', personalized transition of children from pre-primary to primary.

5.3.2 Collaborative governance

Policy officers in the education departments of all Dutch municipalities completed a newly developed structured questionnaire on the local network of services involved in the implementation of the national educational equity policy for early childhood education and care for children in the 2 to 6 years age range. Services involved, as reported, included foremost pre-primary half-day preschools, full-day daycare centers and primary schools, to a lesser extent child mental health services, family support services, and special education schools, and sometimes social welfare organizations. In addition, knowledge institutes were occasionally involved. Cultural (leisure) organizations, child protection boards, and the police were infrequent partners. Note that as per law all municipalities, also the small ones, provide this full range of services although the number of organizations involved in providing these services may differ vastly by size of the municipality. Questionnaire items addressed the three main components of the Collaborative Governance model, described above (see Figure 5.1). Not all items proved to be adequate (occasionally revealing a large non-response or very skewed distribution of answers). As this was an explorative study, these items were excluded. Table 5.1 presents the selection of items included in the final analysis.

The component *Institutional design* comprised, after selection, three single-item variables, assessing if and to what extent (1) the collaboration was established in formal signed agreements between network partners and the local government, (2) the structure and procedures of the network were formally established, and (3) the network was established based on a documented explicit vision and set of goals. The component *Collaborative Process* was addressed by three single items and one scale. The single items assessed on five point scales the extent to which (1) partners of the network shared the educational equity mission of the local government, (2) partners were invited in repeated discussion on the mission and goals of the network, and (3) the network evaluated in a systematic way whether set targets were reached and discussed the results. The fourth indicator was a scale measuring the average degree of interaction among the nine most important network partners (see above), rating the degree of formal and informal contact (e.g., meetings) of the local government with each partner on a five point scale (ranging from 1 = 'never' to 9 = 'weekly'; $k = 9$, Cronbach's α = .860). Finally, the component *Leadership in the local context* was covered by three

variables. The variable Inspirational governance was computed as the sum count of 5 dichotomously scored items describing the role of the local government as, respectively, (financially) facilitating, formally coordinating, bonding and bridging, ambitious goal-setting and mission-driven inspiring, with scores ranging from 0 (none of this) to 5 (all of this). In addition, as a context characteristic (cf. Turrini et al., 2010), the size of the municipality was represented by two dichotomous variables: municipalities with less than 25.000 inhabitants ('small'; about 30% of the current sample) and municipalities with more than 75.000 inhabitants ('big'; about 20% of the current sample), with the largest share of municipalities (50%) being neither small nor big.[1] Municipality size was included as a gross indicator of both the natural network size in terms of the number of organizations potentially involved in the local network, the human resource capacity in the education department of the local government (smaller in small municipalities), and the actual urgency of educational inequality given the demographic composition of the municipality (lower in the small municipalities, higher and more complex in the bigger municipalities).

Table 5.1

Descriptives of Municipal ECEC Network Governance Characteristics; Raw Scores and Percentages after Binary Recoding (n_{mun} = 250)

		Frequency	**%**	**Recoded**	**%**
Institutional design					
Formal collaboration agreements	1 = no	37	14.8%	0 = no/some	64.5%
	2 = some extent	110	44.0%	1 = yes	35.5%
	3 = yes	81	32.4%		
	Missing	22	8.8%		
Formalized structure & procedures	1 = no	77	30.8%	0 = no/some	71.1%
	2 = some extent	85	34.0%	1 = yes	28.9%
	3 = yes	66	26.4%		
	Missing	22	8.8%		
Formalized explicit vision & goals	1 = no	29	11.6%	0 = no/some	50.0%
	2 = some extent	85	34.0%	1 = yes	50.0%
	3 = yes	114	45.6%		
	Missing	22	8.8%		

[1] Note that after successive mergers of municipalities in the same region, there are only 12 municipalities with less than 10,000 inhabitants in the Netherlands. Small municipalities are often conglomerates of villages and small towns in a rural region.

Collaborative process					
Equity mission shared with partners	1 = no, with none	6	2.4%	0 = no/some	62.3%
	2 = no, only a few	12	4.8%	1 = yes/all	37.7%
	3 = with half	17	6.8%		
	4 = yes, majority	107	42.8%		
	5 = yes, with all	86	34.4%		
	Missing	22	8.8%		
Joint discussion of mission and goals	1 = never	3	1.2%	0 = no/seldom	37.7%
	2 = rarely	16	6.4%	1 = yes/often	62.3%
	3 = occasionally	66	26.4%		
	4 = often	107	42.8%		
	5 = very often	36	14.4%		
	Missing	22	8.8%		
Evaluation of the results obtained	1 = never	24	9.6%	0 = no/seldom	42.5%
	2 = rarely	19	7.6%	1 = yes	57.5%
	3 = occasionally	54	21.6%		
	4 = often	104	41.6%		
	5 = very often	27	10.8%		
	Missing	22	8.8%		
Interaction among core partners	Mean (SD)	4.875	(1.984)	0 = low	55.3%
	Range (low-high)	0	9	1 = high	44.7%
	Missing	22	8.8%		
Leadership in the local context					
Inspirational governance	1 = one aspect	9	3.6%	1 = low	37.3%
	2 = two aspects	26	10.4%	2 = high	62.7%
	3 = three aspects	50	20.0%		
	4 = four aspects	61	24.4%		
	5 = all aspects	82	32.8%		
	Missing	22	8.8%		
Number of inhabitants	Mean (SD)	59,243	(87,481)		
	Range (low-high)	9,113	862,965		
	Missing	22	8.8%		
Small municipality (< 25.000)				0 = no	69.7%
				1 = yes	30.3%
Big municipality (> 75.000)				0 = no	80.7%
				1 = yes	19.3%

5.3.3 Analyses

The data analysis proceeded in two steps. First, *k*-means cluster analysis in SPSS 28 was applied to the network characteristics to identify clusters of municipalities characterized by similar configurations of Institutional design, Collaborative process and Leadership in context characteristics. The theoretically derived network governance and context characteristics were recoded into dichotomous variables with scores 0 and 1 to obtain an optimal distribution of municipalities over the binary categories (see Table 5.1, right-most column). *Z*-transformation or binary recoding is recommended to avoid scales with large variance driving the cluster solution. Given the categorical scale of most indicators, *z*-transformation was not applicable. Cluster analysis is a descriptive technique and does not provide statistical indices (e.g., goodness of fit) to decide on a particular solution. Recommended is to compare a number of cluster solutions and to weigh parsimony and several other criteria in evaluating these solutions relative to each other. We examined two-, three-, four-, five- and six-clusters solutions, and evaluated the contribution of theoretically relevant network characteristics to the differentiation in clusters (using ANOVA tests), the average Euclidian distance of the municipalities within the clusters to the clusters' centroids (with a larger average distance indicating more heterogeneity), the distribution of municipalities over clusters, and the theoretical interpretability of the clusters.

Second, One-way Analysis of Variance in SPSS 28 was conducted separately for the sample of pre-primary early childhood education and care centers (n = 463) and the kindergarten departments of primary schools (n = 163), with the municipality's cluster membership as factor and the four quality measures as dependent variables.

5.4 RESULTS

5.4.1 Descriptives

Table 5.1 presents the descriptive statistics of the network governance variables used in the cluster analysis (see below). Table 5.2 presents the descriptive statistics of the four quality measures. Regarding the whole sample, inspectors rated the requirements regarding Emotional (process) quality as most adequately implemented (m = 3.21; SD = 0.37), with the average score indicating 'adequate to good' implementation, and the requirements regarding Pedagogical continuity as the least adequately implemented (m = 2.85; SD = 0.50), with the average score indicating 'inadequate to adequate' implementation. Table 5.1 shows no (Emotional process quality) to almost medium-sized differences (Educational quality) between pre-primary ECEC centers and primary school kindergartens, in favor of kindergartens. The differences are statistically significant, based on One-Way ANOVA (Educational process quality: $F(1, 656) = 28.092$, $p < .001$, $\eta^2 = .041$; Parent involvement: $F(1, 657) = 16.477$, $p < .001$, $\eta^2 = .024$; Pedagogical continuity: $F(1, 650) = 22.133$, $p < .001$, $\eta^2 = .033$). Differences in quality between the two types of provision were not the focus of the current study, but we will return to this in the Discussion section.

Table 5.2

Quality of ECEC Centers and Kindergartens

	Total			ECEC centers			Kindergartens		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Emotional process quality	656	3.19	.38	491	3.19	.39	165	3.18	.36
Educational process quality	658	2.95	.44	492	2.90	.46	166	3.10	.35
Parental involvement	659	2.98	.40	493	2.94	.39	166	3.08	.40
Pedagogical continuity	652	2.85	.50	487	2.79	.50	165	3.00	.47

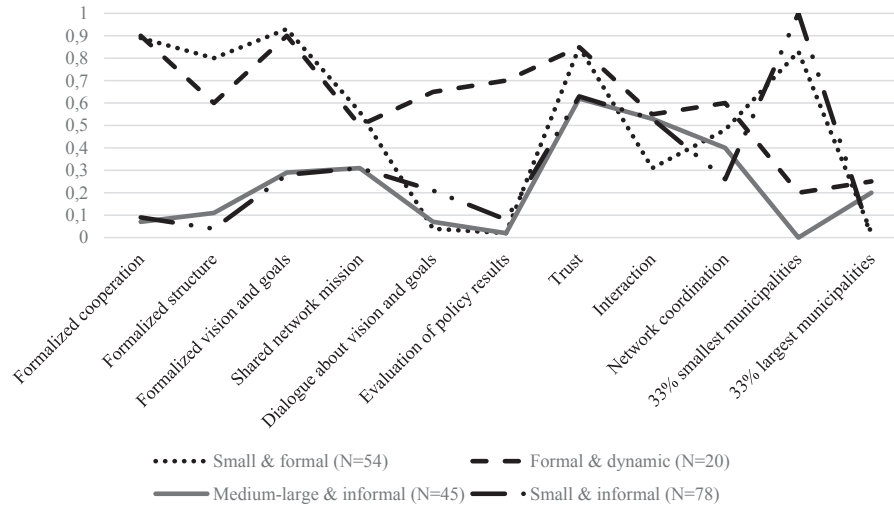
5.4.2 Cluster analysis

Several cluster solutions were compared on the criteria described above. The two-clusters solution did not reproduce theoretically and policy relevant distinctions between the degree of network interaction among preschool partners and whether the municipality belonged to the 30% smallest (number of inhabitants < 25.000) or to the 20% biggest municipalities (number of inhabitants > 75.000) in the current sample (no statistically significant differences between the two clusters on these characteristics). The mean distance of centers to cluster centroids, as an indication of cluster heterogeneity, was 1.328 (SD = .204). The three-clusters solution did also not reproduce distinctions between the municipalities on municipality size. The mean distance of centers to cluster centroids was 1.256 (SD = .220), clearly better than with the two-clusters solution. The four-clusters solution reproduced all theoretically relevant distinctions between the municipalities. Municipalities were sufficiently evenly distributed over clusters, with the smallest cluster containing 29 municipalities and the largest 77. The mean distance of municipalities to the cluster centroids was 1.228 (SD = .236), smaller than found for the two- and three-cluster solutions. The five-clusters solution resulted in sufficiently even cluster sizes (the biggest difference being 30 versus 69 municipalities) and all characteristics contributed significantly to the cluster distinction. The mean distance of centers to cluster centroids was 1.187 (SD = .221), smaller than found for the four-cluster solution. Finally, the six-clusters solution resulted in a less even distribution of units over the clusters (biggest difference being 23 versus 69 municipalities), while all characteristics contributed significantly to the cluster solution, as in the four- and five-clusters solution. The mean cluster-distance was 1.154 (SD = .238), slightly smaller than found for the four- and five-clusters solution. Weighing parsimony (a smaller number of clusters is to be preferred), theoretical relevance (all network and context characteristics contribute significantly to the cluster differentiation), distribution of units over clusters, relative reduction of the mean cluster-distance, and interpretability (see below), we chose to work with the four-clusters solution for the subsequent analyses.

Figure 5.2 shows the profiles of the four clusters based on the selected binary network governance indicators, grouped by Institutional design, Collaborative process, and Leadership in context. The first cluster contains municipalities that are in majority characterized by a low degree of formalization in terms of formal agreements and structure, about half of them have an explicit documented vision and widely shared (educational equity) mission but others do not, the majority is characterized by a relatively high degree of discussion on the equity mission, systematically evaluate the results to be reached and have a high degree of interaction among core network partners, and most are characterized by relatively strong inspirational governance. Municipalities in this cluster are partly small (31%, as can be derived from Figure 2), partly middle-sized (45%) and partly big (24%) in terms of number of inhabitants. We termed this cluster Informal, High-Collaborative (n = 75). The second cluster contains municipalities that are mostly characterized by a low degree of formalization, a low degree of explicit vision and equity mission, a low degree of collaborative processes, limited interactions between core partners in the network and relatively weak governance. Municipalities in this cluster concerned both small (31%), middle-sized (55%) and big municipalities (14%). We labeled this cluster Informal, Low-Missionary, Low-Collaborative (n = 77). The municipalities in the third cluster are in vast majority characterized by formalization of structure, collaboration and vision, they endorse in majority a shared educational equity mission, which is discussed among partners as are the policy results to be obtained, and in the majority of municipalities in this cluster, the core partners in early childhood education and care have a high level of interaction. In most municipalities in this cluster (81%) the local government is regarded as facilitating, leading, stimulating and inspiring. This cluster contains no small municipalities but both middle-sized (68%) and big municipalities (32%). The label for this cluster is Formal, High-Missionary, High-Collaborative (n = 47). Finally, the profile of the fourth cluster parallels that of the third cluster with regard to formal structure, dynamic process and the strong role of the local government, but only a minority of municipalities in this cluster endorse a shared equity mission (31%) and even less have intensive interaction among key partners in early childhood education and care (17%). Municipalities in this cluster are mostly small (76%), partly middle-sized (24%) and never big. We named this cluster Formal, Low-Missionary, High-Collaborative, Small (n = 29).

Figure 5.2

Results of the Cluster Analysis; Profiles of Local Governance Networks for ECEC (Vertical Axis: Proportions of Municipalities Within a Cluster Satisfying Particular Network Characteristics)



5.4.3 Analysis of Variance

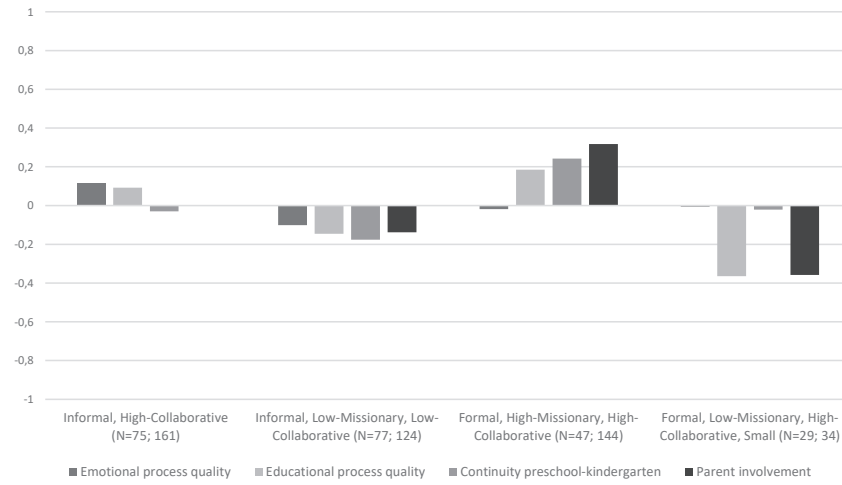
One-way ANOVAs were conducted separately for the sample of pre-primary early childhood education and care centers (n = 463) and the kindergarten departments of primary schools (n = 163) with the municipality's cluster membership as factor and the four quality measures as dependent variables. For ease of comparing the two types of provision, the quality scores were standardized within type of program (preschool education and care *vs*. kindergarten-primary education). Note that standardization does not affect the statistical tests of differences in quality between the clusters.

Regarding pre-primary ECEC centers, the results showed statistically significant differences between the four clusters of municipalities in educational process quality ($F(3, 459) = 4.384$, $p < .005$, $\eta^2 = .034$), parent involvement ($F(3, 460) = 7.121$, $p < .001$, $\eta^2 = .044$). and pedagogical continuity with kindergarten ($F(3, 456) = 4.060$, $p < .007$, $\eta^2 = .026$). There was no statistically significant difference in emotional process quality. Regarding the kindergarten departments of primary schools, only pedagogical continuity with pre-primary ECEC differed significantly between the clusters of municipalities ($F(3, 159) = 4.070$, $p < .008$, $\eta^2 = .071$). The other quality measures did not differ significantly between the clusters in this sample, but confirmed the general trend found for pre-primary ECEC. The standardized scores are presented in Figures 5.3 (pre-primary ECEC centers) and 5.4 (kindergarten departments of primary schools).

Figure 5.3 shows that preschool education and care centers in municipalities of the cluster Formal, High-Missionary, High-Collaborative had on average the highest scores for educational process quality, parent involvement, and pedagogical continuity between preschool program and kindergarten, whereas pre-primary ECEC centers in municipalities of both the Informal, Low-Missionary, Low-Collaborative cluster and the Formal, Low-Missionary, High-Collaborative, Small cluster had on average the lowest scores for these indicators. The quality indicators of centers of the remaining cluster Informal, High-Collaborative were in-between. Standard effect sizes for the differences between the highest and lowest quality scores across clusters were medium-sized: ES = 0.550 (educational process quality), ES = 0.419 (continuity) and ES = 0.676 (parent involvement).

Figure 5.3

Quality of Preschool Education and Care Centers by Municipality Cluster (Scores Standardized Within Type of Provision; n_{mun} = 228; n_{cent} = 463)

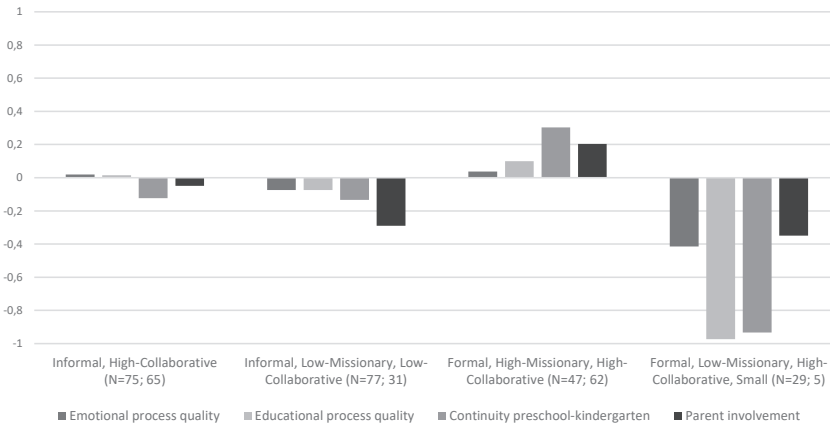


The pattern for kindergarten-primary schools presented in Figure 5 is rather similar (with only Pedagogical continuity differing significantly between the clusters) and shows again the highest quality for kindergartens in the cluster Formal, High-Missionary, High-Collaborative and the lowest quality in the cluster Formal, Low-Missionary, High-Collaborative, Small with medium to very large effect sizes for the differences between the highest and lowest scores (> 1.00). Note that the number of kindergartens in this latter cluster was very small (n = 5), thus the reliability of these findings may be low. However, the pattern is similar to the pre-primary ECEC centers sample where the number of centers in this particular cluster was larger (n = 34). Note also that the standardized differences (ES) of the scores of the Formal, High-Missionary, High-Collaborative cluster with the scores across the other two clusters, i.e., Formal, High-Missionary, High-Collaborative and Informal, Low-

Missionary, Low-Collaborative, are small to medium-sized, respectively ES = 0.173 (educational process quality), ES = 0.436 (pedagogical continuity) and ES = 0.492 (parent involvement).

Figure 5.4

Quality of Kindergarten-primary Schools by Municipality Cluster (Scores Standardized Within Type of Provision; n_{mun} = 228; n_{kind} = 163)



5.5. DISCUSSION AND CONCLUSION

5.5.1 Discussion

Early childhood education and care (ECEC) programs can contribute to children's cognitive and social-emotional development and potentially decrease early emerging education gaps. However, outcomes critically depend on the emotional and educational process quality of the programs provided to children, how well parents are supported and involved in educational partnerships, and to what extent a continuous high quality early education program is provided from 2 or 3 to 6 years of age that avoids or mitigates disruptive transitions. Realizing these preconditions, is particularly challenging in split systems, such as the Dutch ECEC system. In the present exploratory study, using nationally representative data collected by the Inspectorate of Education, we applied a collaborative governance framework to analyze how Dutch municipalities establish and govern the local network of early childhood educational and social services to address these challenges. Without strong a priori expectations, we posed two research questions: (1) Which configurations of institutional design, collaborative process and leadership can be found in the local networks of services in Dutch municipalities that are in charge of implementing the national early childhood educational equity policy?; (2) How are these configurations related to the collaborative performance of the pre-primary ECEC centers and primary school kindergartens, who are core partners in these local networks,

regarding emotional and educational process quality, parent involvement and pedagogical continuity?

Regarding the first research question, applying the theoretical model of Collaborative Governance (Douglas et al., 2020) led to the identification of four distinct configurations of local network governance in the current sample. Regarding the second research question, we found statistically significant associations between the particular network governance configuration and three of the four quality measures (educational process quality, parent involvement and pedagogical continuity) in the sample of pre-primary ECEC centers and on one in the sample of kindergartens (pedagogical continuity), with trending similar results for the other quality aspects as found for pre-primary ECEC.

To elaborate on the main findings of our exploratory analysis, formalization of the mutual obligations, the structure and procedures, the vision and goals of the network (Institutional design), sharing a clear equity mission among partners in line with the national educational equity policy, repeated discussion on the mission and goals of the network, evaluation of (and feedback on) jointly set targets, intensive interaction between the core partners in ECEC (Collaborative process), and strong facilitative and inspirational governance (Leadership) were found to be positively related to three of the four quality aspects examined in this study of the Dutch split ECEC system. Formalization, collaborative processes and strong governance *without* an equity mission and *without* a comparatively high degree of interaction among the core network partners, or collaborative processes with an equity mission, interaction among core partners and inspirational governance but *without* formalization was found to be associated with lower quality. Standard effect sizes for the differences between the highest and lowest quality scores across clusters were, except for emotional process quality (no clear differences), small (in one comparison) to medium-sized or strong (in all other comparisons).

The present results may point to an underlying effect of municipality size and associated ruralness. In small, rural municipalities the issue of educational equity differs from the larger municipalities (e.g., much smaller numbers of underprivileged children eligible for preschool education programs, low representation of children with an immigration background) and the need to strengthen the early childhood education and care network for educational equity policy may be experienced as less urgent (Van de Kuilen & De Wolf, in prep.; Chapter 2). Formalized, collaborative, equity mission-driven, interactive networks with strong inspirational governance were more prevalent in the medium-sized (62% of this cluster) and bigger municipalities (32% of this cluster), and absent in the small municipalities. The size of the municipalities likely correlates both with the experienced urgency of the issue of educational inequality and the human resource capacity of local governments to implement the national educational equity policy at the local level, yet these characteristics do not seem decisive. Also, the two clusters associated with average quality on all four quality aspects (Informal, High-Collaborative respectively Informal, Low-Missionary, Low-Collaborative),

included both small (31% in both clusters), medium-sized (45% and 55%, respectively) and big municipalities (24% and 14%, respectively), as can be derived from Figure 2.

Thus, the present results suggest that, even though context factors associated with municipality size, such as the available capacity to implement educational equity policy and the experienced urgency of this policy, may play a role, municipalities can opt for a network building and network governance approach that likely maximizes impact on the educational quality of ECEC, parent involvement and pedagogical continuity between pre-primary and primary school kindergarten. This impact was larger (and statistically significant) regarding the pre-primary ECEC centers and smaller regarding primary school kindergartens, in line with our previous research with different samples of pre-primary ECEC centers and kindergartens that suggested stronger grasp of the local government on the quality of pre-primary ECEC than on the quality of primary school kindergartens (Van de Kuilen et al., 2023; Van de Kuilen et al., in prep.; Chapters 3 and 4). The present study extends the previous findings by providing a more detailed, theory-based insight in the particular configuration of network structure, process and governance that seems to be most effective.

We found no impact of the network configuration on emotional process quality in both types of provision, which is in line with our previous multilevel study, where considerable variance in observed emotional process quality was found at the municipal level, which however could not be explained by network governance (Van de Kuilen et al., 2023; Chapter 3). There are a number of possible explanations. The emotional (process) quality of both pre-primary ECEC and primary school kindergartens in the Netherlands is according to several studies using observational measures on average high and variation around the high average level may not be systematically related to local educational equity policy factors (Leseman & Veen, 2022; Slot et al., 2019). In contrast, educational (process) quality is overall much lower, as demonstrated by the current study, leaving more room for impact of the local early educational equity policy that focuses on improving educational process quality. In addition, emotional process quality but not educational process quality is intensively monitored by the Local Health Authorities as per law. Therefore, any variance at the municipal level in emotional process quality may be mainly related to the monitoring by the Local Health Authorities, while variance at the municipal level in educational process quality may be mainly related to the implementation of the educational equity policy in the local network (Van de Kuilen et al., 2023; Chapter 3).

The quality of the pre-primary ECEC centers was found to be lower than the quality of the kindergartens in this study on three of the four quality aspects, with small to medium effect sizes. A previous study on educational process quality using the Classroom Assessment Scoring System Toddler and Pre-K (La Paro et al., 2011; Pianta et al., 2009) in a large, nationally representative sample of pre-primary ECEC centers and kindergartens did not find a clear difference between the two types of provision on these observational process quality measures (Leseman & Veen, 2022). Possibly, the measurement instrument used in the current

study was positively biased towards primary school kindergartens and did not fully do justice to pre-primary ECEC. Part of the indicators to assess quality addressed requirements that are more typical for primary schools than for pre-primary ECEC (for example, "The curriculum of provided educational activities increases in difficulty over time and is differentiated to match children's ability levels"). Furthermore, inspectors who collected the data were primary school inspectors. Although they received a training to examine pre-primary ECEC, there may have remained a primary school bias. Therefore, we are hesitant to conclude on the basis of the present findings that the quality of the two types of provision differs.

5.5.2 Limitations

Several limitations to the study should be mentioned. The data used in this study were collected by the national Inspectorate of Education for monitoring purposes and may not have done full justice to the emotional and educational process quality in pre-primary ECEC centers. The data were collected in different years with a four year time lapse between the first (quality assessment in the first subsample) and the last measurement (local network governance assessment). Although both the local networks involved in early childhood equity policy and the local and national policy context can be regarded as relatively stable after successive reforms prior to the year 2010 with the harmonization of ECEC, this may have caused a lack of precision. In addition, the questionnaire on network governance was completed only by representatives of the municipal governments and not by other local network partners. Including the perspectives of the local network partners is to be recommended for future research. A well-supported theoretical model of collaborative network governance was adopted in the present study (Douglas et al., 2020), but no existing, validated measurement instrument was available. Therefore, a new questionnaire had to be constructed that still needs further validation. Nonetheless, the present results add new insights on the importance of local collaboration under mission-driven 'soft' local governance in split ECEC systems (cf. Kauerz, 2018).

5.5.3 Conclusion

The current study was exploratory in nature, as we had no strong a priori expectations regarding the type of local network governance that would be related to higher emotional and educational process quality in ECEC, to stronger policies on parent involvement and to pedagogical and curricular continuity between the main components of the Dutch split ECEC system. The present results, therefore, should be regarded as indicative and in need of replication. As a provisional conclusion, we propose that quality in terms of three of the four aspects studied in this study, is higher in networks of ECEC and other social services if there is a high degree of formalization, mission-driven collaboration, intensive interaction among core network partners, and inspirational governance by the local government.

6 CONCLUSION AND DISCUSSION

6.1 INTRODUCTION

Children are raised in unequal environments and under unequal family circumstances, and therefore they differ in opportunities for educational success. For several decades attention has been paid to equity policies and programs to reduce the risk of early emerging educational disadvantages, and in particular Early Childhood Education and Care (ECEC) programs have been widely expanded to reduce this risk. Attending an ECEC program can have both short term and long term beneficial effects on children's cognitive and social-emotional development (Philips & Shonkoff, 2000; Melhuish et al., 2015; Shonkoff, 2011; Zaslow et al., 2010) and investing in ECEC programs has been found to pay off in a high economic return for society (Heckman et al., 2010; Reynolds et al., 2011; Van Huizen et al., 2019). However, the extent to which ECEC programs promote children's development depends on proper implementation of high quality ECEC programs (Burchinal et al., 2010; Duncan et al., 2022; Elango et al., 2015; OECD, 2017). Several studies have been conducted on the determinants of ECEC quality, focusing mostly on structural and environmental conditions, teacher training and teachers' continuous professional development (e.g., Burchinal, 2020; Joo et al., 2020; Slot et al., 2015; Zaslow et al., 2010), and recently also on structural and cultural characteristics of ECEC organizations (Bayly et al., 2021; Romijn et al., 2023a; Roponen et al., 2023; Van der Werf et al., 2021). The role of local and national governance strategies to assure and improve quality of ECEC, however, is a hitherto understudied topic, yet highly relevant in ECEC systems with a fragmented structure operating in a partly public but decentralized system and a partly privatized, hybrid and competitive market, such as the Dutch ECEC system (Kauerz, 2018; Lloyd, 2020; Van der Werf et al., 2021).

In most countries, ECEC programs are provided in split, privatized, marketized, and decentralized systems, in which it is challenging to provide a continuous high quality program during the entire early childhood period until formal instruction in primary schools start. This also holds for the Netherlands. The Dutch ECEC system for children in the age range 0 to 6 years of age can be regarded as rather complex, because of the different governance systems for under 4 year-olds, on the one hand, and older children, on the other hand. In the past decades, the Dutch government introduced various policy measures and instruments to increase the quality of ECEC, such as subsidies, regulations (laws and inspections), performance agreements, stimulation of network collaboration and other (governance) measures. The purpose of this dissertation was to identify differences between municipalities in the quality of ECEC policies, the quality of pre-primary ECEC centers and the implementation of early childhood equity policies in kindergarten education, and to identify promising governance strategies for effective implementation of educational equity policies in early childhood. This dissertation addressed the question: *'What are promising governance strategies to improve effective implementation of equity policies, in decentralized governance systems with a hybrid ECEC system?'*.

6.2 RESEARCH FINDINGS

The first empirical study reported in Chapter 2 of this dissertation, focused on differences in the quality of ECEC policies between municipalities, as independently assessed by school inspectors. The research question was: '*What factors are associated with the quality of decentralized municipal ECEC policy?*. Three factors were studied: performance agreements, spending per child and coordination of ECEC policies. The results showed that two factors are related to the quality of local ECEC policies. The first and most important factor was coordination of ECEC policies. Municipalities with a higher quality of ECEC policies coordinated collaboration with partners, set up (grant) agreements with ECEC providers, and systematically evaluated the agreements. In addition, we found that reaching agreements on performance was associated with the quality of the local ECEC policy: municipalities with performance agreements with the national government tended to have higher quality ECEC policies. These performance agreements were made with the bigger municipalities in the Netherlands and also included monitoring and extra funding. The spending per child was not significantly related to the quality of ECEC policies in Dutch municipalities.

The second study, reported in Chapter 3, examined the differences in pre-primary ECEC quality and the implementation of the early childhood educational equity policy between municipalities in the Netherlands, captured in the question: *'Which systematic differences exist in ECEC quality in pre-primary education between municipalities in the Netherlands, and to what extent are those differences related to municipal ECEC governance?'*. The results in this chapter showed that both observed emotional as well as observed educational process quality of pre-primary education differed substantially between municipalities, despite the presence of a national harmonized legal framework. Contrary to our expectations, the formal compliance of municipalities with the legal requirements, as monitored by the national Inspectorate of Education, showed no significant associations with the observed emotional and educational process quality at the municipal level. However, the results did provide an indication that a mission-driven local network governance may lead to higher educational process quality in pre-primary ECEC. Educational process quality was higher in municipalities with a stronger governance of local networks, indicating that monitoring municipal compliance based on statutory formal and procedural requirements may have less impact on ECEC quality than monitoring the functioning of the local network.

In the study, reported in Chapter 4, we examined how key characteristics of the Dutch educational governance mode are related to the implementation of the national early educational equity policy in the kindergarten departments of primary schools, considered part of the ECEC system for children from 0 to 6 years of age, captured in the research question

'*Are there systematic differences in the implementation of the national educational equity policy in kindergarten between classrooms, schools, school boards and municipalities in the Netherlands, and to what extent are the differences in the implementation of educational equity policy in kindergarten between municipalities related to characteristics of the municipal educational governance?'*. We focused on four indicators of effective implementation of the educational equity policy: 1) the implementation of an age-appropriate academic curriculum; 2) the use of guided play to foster self-regulation; 3) the social-emotional support provided to children; and 4) the creation of a culturally inclusive classroom climate. In a multilevel analysis, we found systematic variance in these indicators at the levels of the classrooms and the schools. However, very limited variance, if any, was found to be associated with the level of the school boards and the level of the municipalities. This finding was contrary to our expectations, because of the responsibilities and concomitant governance power attributed to the school boards and the municipalities. None of the municipal policy indicators, nor the indicator of mission-driven collaborative local network governance were found to be associated with variance at the municipal level, likely due to the lack of variance at the municipal level.

Our fourth study, reported in Chapter 5, examined the relationships between local ECEC governance strategies and four ECEC quality indicators: observed emotional and educational process quality, reported measures to involve parents and reported continuity of pedagogy and curriculum across the transition between pre-primary ECEC and primary school kindergartens. Applying a recent theoretical model of collaborative governance, we explored the configurations of institutional design, collaborative process and leadership that characterized the local networks of services in Dutch municipalities, captured by the question: *'What conditions for collaborative performance can be found in Dutch local networks concerning ECEC, and which conditions for collaborative performance are related to ECEC quality of pre-primary ECEC centers and ECEC kindergartens?'*. We found four distinct configurations of local network governance. The results for pre-primary ECEC centers showed that the governance configuration characterized by formalization of agreements, equity mission-driven collaboration, intensive interaction among core network partners, and inspirational governance by the local government was associated with the highest levels of educational process quality, parent involvement policy, and reported pedagogical continuity. The results for primary school kindergartens revealed a similar pattern, but in this sample only the relationship between governance configuration and pedagogical continuity was found to be statistically significant.

6.3 LIMITATIONS AND FUTURE DIRECTIONS

Before discussing the main findings, the three most important limitations of this dissertation should be noted. First, the ECEC inspection framework that was used to collect the data on municipal governance quality and ECEC quality throughout this dissertation was not designed with the intention of conducting scientific research. Because the inspection instruments were primarily designed to assess whether minimum quality thresholds were reached as specified in laws and regulations, these data may provide too narrow a view on the municipal educational equity policy and the quality of preschool centers and ECEC kindergartens. More focused research on municipal educational equity policy, its embeddedness in the municipal governance of local networks, and its influence on quality of ECEC and the implementation of equity policies is needed.

The second limitation concerns the small sample sizes of the studies reported in Chapters 3 and 4. The linking of the inspection data and the data of the pre-COOL cohort study produced a unique dataset but resulted in relatively small municipal samples, which may have underpowered the statistical conclusions. Moreover, large urban municipalities were overrepresented and small rural municipalities were underrepresented in the resulting samples, which may have biased the conclusions, particularly because several findings reported in this dissertation point to a possible underlying effect of municipality size and degree of urbanization. For instance, in small rural municipalities the issue of educational equity differs from the larger municipalities (e.g., much smaller numbers of underprivileged children eligible for pre-primary education programs, and lower representation of children with an immigration background). The need to strengthen the early childhood education and care network for educational equity policy may be experienced as less urgent in small rural municipalities.

Finally, in Chapter 5, we identified governance configurations of local collaborative ECEC networks from the perspective of the municipalities, with data collected among municipal policy representatives. This may have provided a limited and perhaps biased understanding of the structure and functioning of the local networks. Including also the perspectives of the local network partners, such as childcare organizations, schools, and school boards, is to be recommended for future research to provide a better understanding of the functioning of networks in preserving and improving ECEC quality, and in implementing educational equity policies in early childhood.

As the Dutch situation represents a rather complex ECEC system, with a strong break between pre-primary ECEC and primary school kindergarten education, it would be interesting to explore promising governance strategies in other countries with different systems to gain a better understanding of approaches to increase the quality of ECEC through governance.

6.4 IMPLICATIONS FOR POLICY

ECEC systems worldwide are governed in various ways. Firstly, governance varies in the extent to which ECEC policy and the implementation of ECEC programs are decentralized. In some countries (e.g., France), the central government still has a prominent position in ECEC and formal education in general. In other countries (e.g., Finland, the Netherlands) ECEC is (strongly) decentralized and the implementation of ECEC is mainly governed by local governments, local schools or local school boards. Secondly, the way in which ECEC is organized varies. In countries, such as the Netherlands, early childhood education for children up to 4 years of age is provided by private childcare centers whereas education for children aged 4 to 6 is provided by public primary schools, resulting a split and decentralized and complex system.

Why is the Dutch ECEC system complex?

The Dutch ECEC system consists of several, partly separate, components. Dutch childcare is intended for children aged 0 to 4 and is still mainly used as an instrument to enable parents to participate in the labor market. Childcare is offered in a hybrid market by private parties, both for-profit and not-for-profit organizations. Targeted pre-primary education for disadvantaged children from 2.5 to 4 years of age is offered in childcare centers by the same private for-profit and not-for-profit childcare providers. Childcare providers have to meet specific legal requirements for childcare and pre-primary education. These requirements include, among others, safety and hygiene regulations, and training requirements of pedagogical staff. Additional requirements have been set for targeted pre-primary education, such as the use of a structured ECEC-curriculum.

Municipalities are of importance considering the provision of pre-primary education: they have to ensure sufficient high-quality pre-primary provisions, and distribute subsidies among pre-primary ECEC centers. They also have to make agreements with childcare providers and school boards to ensure that as many disadvantaged children as possible can use the provisions and that the transition between pre-primary schools and kindergarten is smooth.

In the Netherlands, kindergarten, for children over 4 years old, is part of primary education and therefore school boards are responsible for the financing and quality of kindergarten education, and also for the implementation of measures in the early years to increase educational equity. Dutch school boards are autonomous when it comes to providing (kindergarten) education, and receive block grants for increasing educational equity. Contrary to pre-primary education, no specific requirements or guidelines are set for kindergarten education, nor for implementing measures to increase educational equity in this stage.

To summarize, the Dutch ECEC system for 0 to 6-year-olds is rather complex, also in international perspective (OECD, 2016), the governance of such a complex system is a major challenge and, according to our research, currently not sufficiently effective in ensuring key determinants of long-term outcomes, namely high emotional and educational process quality,

cooperation with parents, long duration rather than high intensity of a coherent ECEC program, and continuity of an age-appropriate curriculum and pedagogical approach across transitions within the ECEC system.

What is the problem?

Research shows that educational inequality between children in the Netherlands has not substantially decreased over the past decades, despite substantial spending on educational equity policy. The achievement levels in mathematics, language and literacy of children from low-educated parents are still substantially lower than those of children with higher educated parents. Differences that already exist at age two and even before, do not disappear in primary school, and are further reinforced when children at age 12, at the end of primary education, are sorted for the hierarchically differentiated secondary school system (Zumbuehl & Dillingh, 2020; Leseman & Veen, 2022; for international evidence, see Bradbury et al., 2015; Passaretta et al., 2022).

The potential contribution of ECEC to child outcomes and societal benefits in the long term, by providing education and care of high emotional and especially educational process quality in pre-primary centers and kindergartens, by involving parents and by establishing a continuous pedagogical approach and educational curriculum across the transition to kindergarten, is not fully exploited in the Netherlands. The (educational) process quality of pre-primary ECEC centers and primary school kindergarten education should be improved, and the continuity of curriculum and pedagogical approach until age 6 should be strengthened (Inspectie van het Onderwijs, 2020; Leseman & Veen, 2022; see also Chapter 5). Moreover, policies to increase parent involvement at pre-primary centers and kindergartens are still unsatisfactory (Inspectie van het Onderwijs, 2020; see also Chapter 5), and research shows that attention to diversity and inclusion remains insufficient (Van der Werf et al., 2021), possibly leading to the exclusion of children of diverse backgrounds who might benefit most from ECEC.

New challenges are emerging, such as the increase in the number of toddlers with additional or special needs in pre-primary ECEC centers. This relates to the intended and already partially realized policy shift from specialized youth mental health care for young children to preventive care in general provisions, such as pre-primary ECEC and primary school kindergartens (Ministerie van Veiligheid en Justitie & Ministerie van Volksgezondheid, Welzijn en Sport, 2014). As a result, children with issues other than educational disadvantages based on their socioeconomic, ethnic-cultural or migration background are entering ECEC. A recent report from the national daycare quality monitor shows a substantial increase of children with special needs in the half-day and full-day programs for 0 to 4-year-olds in the Netherlands in the period 2017 to 2022 (Romijn et al., 2023b). Another new challenge is the increasing diversity in the Netherlands, due to continuing labor migration and inflow of refugees, including families with (young) children.

This results in an increase in the number of children at risk for educational disadvantages, who need language support in a culturally inclusive climate, and support to cope with other problems resulting from poverty and traumas. These challenges call for a well-functioning, inclusive and supportive ECEC system.

What causes the problem?

From 1998 onwards, municipalities have been given a central role in the consecutive educational equity policies (Leseman & Slot, 2020). From 2000, investing in targeted ECEC programs became the priority of the national educational equity policy in conjunction with a strong focus on a continuous pedagogical approach and an age-appropriate curricular content of ECEC from age 2.5 to 6. The national regulations for targeted ECEC programs in 2000 required the use of structured and (potentially) effective curricula, strong collaboration between pre-primary ECEC and kindergarten to ensure continuity and prolonged stimulation, and, in kindergarten, a smaller group size and the deployment of an additional teacher or teacher-assistant to lower the children-to-staff ratio. The latter was intended to create more continuity in structural quality between pre-primary ECEC and kindergarten. Municipalities, within this initial policy, had the task to establish collaboration between pre-primary ECEC, kindergarten education and other sectors, such as youth mental health care (Mulder et al., 2005). However, this initially strong governance approach to ECEC, including primary school kindergartens, soon diluted. For instance, implementation of local 'light' curricula became allowed and the requirement to provide an extra teacher or teacher-assistant in kindergarten was often not implemented (Doolaard & Leseman, 2008; Mulder & Meijnen, 2013).

With the introduction of block grant funding in primary education in 2006, the responsibility and financing of educational equity policies in primary education shifted from the municipalities to the school boards. While the autonomy, power and responsibility of the school boards increased in the past decades, especially with regard to the implementation of the educational equity policy, school boards currently do not seem sufficiently focused on the urgency of educational equity policies in the early childhood period. This was partly reflected by the findings reported in Chapter 4, in which we concluded that school boards do not govern the quality of education for young (disadvantaged) children. Moreover, other research showed that the implementation of targeted early childhood education programs is hardly noticeable in kindergarten (Leseman & Veen, 2016).

To increase educational equity in the early years, the educational process quality and coherence of the ECEC system is of great importance. Stronger alignment of, and collaboration at the local level between pre-primary ECEC centers and the kindergarten departments of primary schools is warranted. However, the governance instruments available to local government are insufficiently suited to manage a coherent system, partly due to the autonomous position of school boards. Teachers and school principals are connected with the quality of early childhood education and can be important in linking pre-primary ECEC

centers and kindergarten education, but they cannot sufficiently influence the budget and agreements made on the broad (municipal) educational equity policy.

Municipalities still have a pivotal, albeit somewhat paradoxical, role in the implementation of the national educational equity policy and are bestowed with the tasks to ensure availability and access to ECEC, high emotional and educational process quality of the programs provided, to encourage involvement of parents and arrange support to parents in need of help by aligning other social services such as youth mental health care and family support to ECEC, and to ensure pedagogical and curricular continuity within the split system, in particular across the transition to primary school kindergarten. For the system for 0 to 4-year-olds, and more specifically for the targeted pre-primary education programs for 2.5 to 4-year-olds, municipalities have fiscal and administrative instruments at their disposal and at least some municipalities have adopted effective governance approaches to fulfill these tasks, as was found in the studies reported in Chapters 3 and 5 of this thesis. However, with regard to the primary school kindergarten part of the ECEC system and the implementation of the educational equity policy in kindergartens, such instruments are lacking. The remaining soft governance instruments municipalities do have at their disposal, namely the mandatory municipal educational consultations (referred to as the 'local educational agenda', LEA) and the agreements municipalities have to make with school boards on the aspired results of early childhood education, are not sufficiently effective for several reasons. First, because of unclear regulations, municipalities are not sufficiently aware of what is expected. Second, due to the strong focus on the formal process (conducting consultations and making agreements, as legally required), rather than on the content, relevance and validity of the objectives and agreements in relation to extant research evidence, formal compliance with these requirements results in a wide variety of local definitions and objectives with no measurable impact on the key quality indicators studied in this thesis (Inspectorate of Education, 2022; Inspectorate of Education, forthcoming; see also Chapters 3 and 4).

Our findings in Chapter 5 show that local collaborative network governance can have a positive impact on ECEC quality, in particular on the educational process quality, parent involvement and the continuity between preschool and kindergarten, but here, too, more steering is needed. Conditional for effective network governance is that municipalities function as network coordinators, as 'spiders in the web'. However, recent research shows that not every municipality is equally capable of effectively coordinating the local network of early childhood services (Inspectie van het Onderwijs, 2022; see also Chapters 2 and 5). Research in other policy areas, such as youth mental health care (Sociaal-Economische Raad, 2022), also indicates the need for improved municipal governance, in particular the need for effective instruments at the local level, both financially and in terms of substantive knowledge and experience, to enable municipalities to perform their tasks in this area.

In Chapter 5, we identified several modes of local educational governance. The type of governance based on formal agreements on policies, procedures and structures, a shared

equity mission-driven approach, and intensive interaction between core partners with strong facilitative and inspirational leadership by the municipality, was found to be most effective. This type of governance was found only in a minority of the municipalities who were part of the present study sample. Most municipalities in our sample had adopted less effective local network governance strategies, especially because their strategies either lacked formalization or a shared equity mission and collaborative interactions between network partners. Less effective local governance was clearly associated with lower ECEC quality. Our findings seemed to indicate that not all municipalities are equally aware of the urgency of governing ECEC and that not all municipalities equally endorse the value of (educational) equity. In general, also with regard to local educational governance, clear guidelines for municipalities regarding how to approach this task are lacking.

What are possible solutions?

The current dissertation provides several suggestions to improve the governance of the local ECEC system until age 6, in order to obtain a more effective implementation of educational equity policies in the early childhood period. The overall impression is that a simplification of the ECEC system is needed, but not every measure to make the system more manageable will do. The plans to make ECEC almost free of charge with subsidies for parents up to 96% of the costs that are directly distributed to the ECEC centers to simplify the funding system, will not serve the purpose of increasing early educational equity if the free market mechanisms are not changed, on the contrary (Plantenga et al., 2022). Decentralizing the governance of social services to the local level does not automatically lead to improvement and such a major transformation of governance needs to be carefully considered in the context of, and specifically adapted to, the peculiarities and mechanisms of the systems of these services. This is particularly evident from two recent major transitions in the social domain. The first, the introduction of the Act Adaptive Education (Passend Onderwijs) in 2014, was intended to increase the inclusion of children with special educational needs in regular education through regional network collaboration between regular schools and special education schools. The second, the introduction of the Youth Act in 2015, was intended to decentralize the organization and governance of youth (mental health) care to the municipalities, to reduce the macro costs, and to shift the balance from indicated individual treatments to preventive care. Both transitions did not meet the expectations and are now under review for fundamental reforms (Ledoux & Waslander, 2020; Sociaal-Economische Raad, 2022).

Transforming a complex system is not an easy task. Yet, the Dutch ECEC system evidently needs stronger governance, and even though more research is needed, a number of possible solutions to improve the local governance and implementation of early childhood equity policies are described below.

Funding guidelines

In order to improve governance effectiveness, we propose that the responsibility for formulating and coordinating equity policies should be unambiguously assigned to municipalities. This should include (a) a transfer of the educational equity budget of the school boards to the municipalities or, at least, earmarking this part of the schools' block grants with the accompanying commitment to collaborate with pre-primary ECEC centers under auspices of the municipality, and to transpose the municipal educational equity policy to the educational equity policy at the school level, with an emphasis on the kindergarten period; and (b) the implementation of a continuous age-appropriate ECEC curriculum and pedagogical approach.

Network governance

To enable the implementation of educational equity policies, a local network should to be set up in each municipality, in which the services that are involved, or are needed, to implement the policy optimally become connected. This concerns first and foremost the local providers of pre-primary education and care and the primary schools who provide kindergarten education. Other relevant parties are youth health care and youth mental health care, and organizations for neighborhood welfare, social work and cultural work (e.g., local libraries). Training and research institutes can be part of the network as well. In large municipalities the networks can be organized on a district basis and in the small rural municipalities on a regional basis, led by a network coordinator who is employed or appointed by the municipality. The network involves the professionals who are directly involved in the implementation of ECEC and the early childhood equity policy, schools or teachers rather than schoolboards. The network should be built on the basis of formalized agreements, should develop a shared mission and vision, set common goals in line with the national goals and develop a plan on how to reach these goals, and should monitor its performance relative to the set goals. To avoid differences between municipalities, it is important to formulate (a) guidelines regarding networking and (b) concrete goals and content of the educational equity policy at the national level.

Policy guidelines

The municipal educational equity policies, including ECEC, need to be defined within the administrative LEA consultations and, if necessary, adjusted in the LEA. Boards of schools with a moderate to high proportion of disadvantaged children will be required (a) to join the municipal educational disadvantages policy, (b) to translate this policy in collaboration with their school principals into school-specific educational equity measures, and (c) to implement and evaluate the results of the policy within their schools.

Our findings in Chapters 3 and 4 showed that the legal requirements currently imposed on municipalities, and monitored by the Inspectorate of Education, do not sufficiently impact

the educational quality of pre-primary ECEC centers and kindergarten departments of primary schools, nor do they appear to be related to increased parental involvement and pedagogical-curricular continuity across the transition from pre-primary ECEC to primary school. The current requirements predominantly address the formal process, i.e., *that* consultations should be held and *that* agreements should be established, but do not focus on the contents and outcomes of the consultations and agreements. As a consequence, the agreements established in municipalities are often insufficiently meaningful or concrete, and they are often not grounded in the current scientific knowledge. They are difficult to translate into concrete, relevant and measurable actions and outcomes in ECEC-centers (Inspectorate of Education, 2022). In some municipalities, this results in a 'parallel reality' in which consultations are held and agreements are made, because it is mandatory, but in which agreements do not focus on the desired effects of ECEC, are not ambitious, and are without content (see for an example the Box below).

Example: Outcome agreements ECEC kindergarten period
Municipalities have to make agreements on the expected developmental outcomes of children during the ECEC kindergarten period. This is monitored by the Inspectorate. A typical finding of inspections is that municipalities and their partners have come to the agreement 'that children's disadvantages shall not increase during the kindergarten period and before they enter grade 1 [groep3]'. From a formal point of view, these municipalities have adequately complied with the legal requirements, but it is less ambitious than the (national) ambition; children catch up before they enter formal education in grade 1.

External monitoring

Since the content, relevance, ambition, implementation and aspired results of the mandatory local agreements are not specified in laws and regulations, they are not monitored by the Inspectorate. In addition, the Inspectorate's supervision task does not include the functioning of the local early childhood education network, as a well-functioning network is not a legal requirement. Although municipalities are given a coordinating role per law, how municipalities fulfill this role is not specified. The findings in Chapters 3 and 5 of this dissertation suggest that facilitative and inspirational network governance, with a mission, rather than compliance with formal requirements may influence the quality of ECEC, the involvement of parents and the pedagogical and curricular continuity across the major transition in the ECEC system around age 4. Previous research by the Inspectorate, conducted outside the legal monitoring task, focusing on new approaches to monitoring municipal tasks, found that supervision by the Inspectorate of the functioning of the local network adds value (Inspectorate of Education, 2019). Therefore, we propose that the Inspectorate should monitor

the entire system: from the process *and* content of local policy-making, to the implementation of the educational equity policy at the local level, to the compliance of ECEC providers, schools and school boards with the shared mission, set agreements and aspired results, to ultimately the quality of care and education provided by the pre-primary ECEC centers and the primary schools. A strength of the Inspectorate is that it has in principle the capability to monitor the quality of the local educational equity policy in relation to its effect on practice, which was illustrated in the study reported in Chapter 5.

6.4.2 Discussion

The proposed measures described above amount to the curtailment of school boards' autonomy at least for the early childhood period and the implementation of the early childhood educational equity policy. This implies a fundamental break with the tradition of educational governance in the Netherlands. The question is whether our proposals are feasible in the current system. Perhaps 'soft governance' offers an interim solution, with more substantive steering through a legal framework that goes beyond formal processes, on the one hand, and that gives additional fiscal and administrative instruments to municipalities to commit and, whenever needed, steer school boards to fully support the municipal educational equity policy, on the other hand. More substantive steering requires a legal framework with, first and foremost, substantive, that is, value-, content- and evidence-based requirements for high quality pre-primary ECEC and kindergarten education. The legal requirements could include a related pedagogical framework that emphasizes emotionally safe and inclusive care, and the use of active (play-based) learning formats. This curriculum and pedagogical framework should be continuous and age-appropriate, increasing in complexity and difficulty as children age, in order to support the long trajectories of children's learning and development in multiple domains and to bridge significant breaks within the system. The legal requirements could also include binding guidelines for local network building and network governance, specifying key aspects such as defining, in interaction and collaboration with the key partners, a shared mission and road map to combat early emerging educational disadvantages, to set relevant and ambitious goals, and to implement a system of monitoring the progress and performance of the network.

6.5 GENERAL CONCLUSION

The all too obvious main conclusion of this doctoral thesis is that governing ECEC to realize the potential contribution of ECEC to children's development and to economic returns in the long term in a complex, hybrid, split and decentralized system, is not an easy task. In this thesis, we tried to unravel the structures and mechanisms of the Dutch ECEC system that complicate the governance of this system and we explored alternative approaches to the governance of the ECEC system that can potentially deal more effectively with its current

complexity. We defined ECEC, in line with the international view (e.g., OECD, 2010), as all center-based services for children aged 0 to 6 years that potentially contribute to their development and school readiness and, more specifically, that potentially prevent early emerging educational gaps by children's family background. We reviewed and empirically examined several governance instruments in this dissertation. Two instruments stand out: (1) encouraging the coordination of ECEC in the municipality, based on formalized, equity mission-driven collaborative network governance, with strong collaboration between partners, and inspirational governance of the municipality, and (2) setting up specific performance agreements that aim to increase the quality of ECEC. Applying these instruments likely leads to more effective local ECEC policies in municipalities and, based on several indicators, to higher quality in ECEC. Governing the quality of primary school kindergartens, considered part of the ECEC system for 0 to 6-years-olds, seems to be most complex, given the limited association of both school boards and municipalities with the quality of kindergarten ECEC. It is complicated to change the structure of the education system fundamentally, yet it may be possible to improve the governance of the system in order to enable better implementation of the educational equity policy and to increase the quality of the entire ECEC system to the benefit of all young (disadvantaged) children.

IMPACT

Objective

This dissertation studies differences between municipalities in the quality of municipal Early Childhood Education and Care (ECEC) ECEC policies, the quality of pre-primary ECEC centers and of kindergarten education. The aim of the dissertation is to identify promising governance strategies for effective implementation of educational equity policies in ECEC systems. In most countries, these ECEC systems are complexly organized. ECEC programs are provided in split, privatized, marketized, and decentralized systems. Therefore it is challenging to provide a continuous high quality program during the entire early childhood period until formal instruction in primary education starts.

The complexity also holds for the Dutch ECEC system; it consists of several, partly separate components and different governance systems and a mix of private and public organizations. Dutch childcare is intended for children aged 0 to 4 and is mainly used as an instrument to enable parents to participate in the labor market. Childcare is offered in a hybrid market by private parties, both for-profit and not-for-profit organizations. Targeted pre-primary education for disadvantaged children from 2.5 to 4 years of age, is offered in childcare centers by the same organizations that offer regular childcare. In the pre-primary education sector, municipalities have to ensure sufficient high-quality pre-primary provisions, and distribute subsidies among pre-primary ECEC centers. Dutch kindergarten for children over 4 years old, is part of primary education and consequently, school boards are responsible for the financing and quality of kindergarten education, and also or implementing equity policies in the kindergarten period of primary education. The Dutch ECEC system is rather complex, with two challenges: effective governance and effective equity policies.

Main conclusions

The main conclusion of this dissertation is that governing ECEC to realize the potential contribution of ECEC to children's development and to economic returns in long term in a complex, hybrid, split and decentralized system, is not an easy task. In this dissertation, we tried to unravel the structures and mechanisms of the Dutch ECEC system that complicate the governance of this system and we sought for alternative approaches to the governance of the ECEC system that can potentially deal more effectively with its current complexity. We defined ECEC as all center-based services for children aged 0 to 6 years that potentially contribute to their development and school readiness and, more specifically, that potentially prevent early emerging educational gaps by children's family background. We reviewed and empirically examined several governance instruments in this dissertation. Two instruments stand out: (1) encouraging the coordination of ECEC in the municipality, based on

formalized, equity mission-driven collaborative network governance, with strong collaboration between partners, and inspirational governance of the municipality, and (2) setting up specific performance agreements that aim to increase the quality of ECEC. Applying these instruments likely leads to more effective local ECEC policies in municipalities and, based on several indicators, to higher quality in ECEC. Governing the quality of primary school kindergartens, considered part of the ECEC system for 0 to 6-years-olds, seems to be most complex, given the limited association of both school boards and municipalities with the quality of kindergarten ECEC.

Implications for policy

This dissertation provides several suggestions to improve the governance of the Dutch local ECEC system until age 6 in order to obtain a more effective implementation of educational equity? policies in the early childhood period. Decentralizing the governance of social services to the local level does not automatically lead to an improvement and such a major transformation of governance needs to be carefully considered in the context of, and specifically adapted to, the peculiarities and mechanisms of the systems of these services. A simplification of the Dutch ECEC system is needed, but transforming a complex system is not an easy task.

In order to improve governance effectiveness, we propose that the responsibility for formulating and coordinating equity policies should be assigned to municipalities. This should include a transfer of the educational equity budget of the school boards to the municipalities, or, at least, earmarking this part of the schools' block grants. Connecting to the earmarking, the accompanying commitment to collaborate with pre-primary ECEC centers under auspices of the municipality, and elaboration with the municipal educational equity policy at the school and kindergarten level accompanied by the implementation of a continuous age-appropriate ECEC curriculum and pedagogical approach.

To enable the implementation of educational equity policies, a local network should be set up in each municipality, in which the services involved, or needed, to implement the policy optimally become connected. This concerns first and foremost the local providers of pre-primary education and care and the primary schools who provide kindergarten education. The network involves professionals who are directly involved in the implementation of ECEC and early childhood equity policy, school principals or teachers, rather than schoolboards, led by a network coordinator who is employed or appointed by the municipality. The network should be built on the basis of formalized agreements, should develop a shared mission and vision, set common goals in line with the national goals and develop a plan on how to reach these goals, and should monitor the performance relative to the goals set. To avoid differences between municipalities, it is important to formulate guidelines regarding networking and concrete goals and content of the educational equity policy at the national level.

The municipal educational equity policies, including ECEC, need to be defined within the administrative LEA consultations and, if necessary, adjusted in the LEA, under auspices from the municipal. Boards of schools with a moderate to high proportion of disadvantaged children will be required to join the municipal educational disadvantages policy, to translate this policy in collaboration with their school principals into school-specific educational equity measures, and to implement and evaluate the results of the policy within their schools. In addition, it is important that the content of the agreements become more meaningful and concrete.

We also propose that the Inspectorate should monitor the entire system: from the process *and* content of local policy-making, to the implementation of the educational equity policy at the local level, to the compliance of ECEC providers, schools and school boards. This also includes monitoring the shared mission, set agreements and aspired results, and ultimately, the quality of care and education provided by the pre-primary ECEC centers and the primary schools. The inspection should appoint failing municipalities and school boards, and ultimately have sanction powers for constantly failing municipalities or schoolboards.

The proposed measures described above amount to the curtailment of school boards' autonomy at least for the early childhood period and the implementation of the early childhood educational equity policy. This implies a fundamental break with the tradition of educational governance in the Netherlands. The question is whether our proposals are feasible in the current system. Perhaps ‘soft governance’ offers an interim solution, with more substantive steering through a legal framework that goes beyond formal processes, on the one hand, and that gives additional fiscal and administrative instruments to municipalities to commit and, whenever needed, steer school boards to fully support the municipal educational equity policy, on the other hand. More substantive steering requires a legal framework with, first and foremost, substantive, that is, value-, content- and evidence-based requirements for high quality pre-primary ECEC and kindergarten education.

As mentioned before, it is complicated to change the structure of the education system fundamentally, yet an improvement of the governance of the system is required. The complex system now allows for interests other than the public interest of providing good ECEC education to vulnerable children. More effective governance allows enabling better implementation of the educational equity policy and to increase the quality of the entire ECEC system to the benefit of all young (disadvantaged) children, in the interests of children, communities and society as a whole.

SAMENVATTING (SUMMARY IN DUTCH)

Introductie

Kinderen groeien op in ongelijke omstandigheden en hebben daardoor ongelijke kansen op succes in het onderwijs. Om de kansen voor kinderen in maatschappelijke achterstandssituaties te vergroten, wordt al decennia lang onderwijsachterstandenbeleid ingezet. Voor- en vroegschoolse educatie (vve) is een belangrijk onderdeel van het onderwijsachterstandenbeleid. Een van de voornaamste redenen om te investeren in vve is dat achterstanden zich al op jonge leeftijd voordoen en op die leeftijd ook het gemakkelijkst kunnen worden ingehaald. Uit onderzoek blijkt dat vve kan bijdragen aan het inlopen van achterstanden, maar daarvoor moet vve wel aan een aantal voorwaarden voldoen. Zo draagt vve van hoge kwaliteit in hogere mate bij aan de ontwikkelingsgroei van kinderen dan vve van lagere kwaliteit. Kwaliteit van vve bestaat uit meerdere componenten, zoals structurele kwaliteit, (emotionele en educatieve) proceskwaliteit en de kwaliteit van het programma van activiteiten (het 'curriculum'). Daarnaast bevat een breder beeld van kwaliteit ook de samenwerking met ouders en een goede doorgaande lijn tussen voor- en vroegscholen.

In Nederland is voor- en vroegschoolse educatie bedoeld voor kinderen van 2,5 tot 6 jaar met een (risico) op ontwikkelingsachterstand in kinderdagopvang (voorschoolse educatie) en groepen 1 en 2 van de basisschool (vroegschoolse educatie). Kinderopvang wordt uitgevoerd door private, for-profit en not-for-profit, organisaties, waarvan een deel ook (gesubsidieerde) voorschoolse educatie aanbiedt. De financiering en aansturing van voorschoolse educatie is gedecentraliseerd naar de gemeenten. Wanneer kinderen 4 jaar worden, gaan zij naar de basisschool (of vroegschool). De financiering en aansturing van vroegschoolse educatie is gedecentraliseerd naar de schoolbesturen als onderdeel van de lumpsum-bekostiging. Kortom, er is in Nederland sprake van een complex systeem, waarbij in de voorschoolse periode for-profit en not-for-profit partijen opereren onder regie van de gemeenten, maar in de vroegschoolse periode de regie vooral bij de schoolbesturen ligt. Beide met eigen wet- en regelgeving. Sturing van het geheel is daardoor gecompliceerd.

Deze dissertatie

In deze dissertatie gaan we in op sturingsstrategieën in complexe systemen. We willen meer inzicht geven in de invloed van de ingezette sturingsstrategieën op de kwaliteit van vve en de mate waarin het onderwijsachterstandenbeleid wordt uitgevoerd zoals bedoeld in de voor- en de vroegscholen om zo een beeld te kunnen geven van mogelijke kansrijke strategieën om de kwaliteit en implementatie te verbeteren. Onze resultaten en conclusies zijn gebaseerd op gegevens uit het Pre-COOL cohort onderzoek en gegevens van de Inspectie van het Onderwijs. Het doel van het Pre-COOL cohort onderzoek was om de kwaliteit van vve en de

ontwikkeling van kinderen in beeld te brengen, met name van kinderen met laagopgeleide ouders of met een migratieachtergrond. Tussen 2010 en 2020 werd de ontwikkeling van Nederlandse kinderen in beeld gebracht. Daarnaast werd de kwaliteit onderzocht van de voorscholen en de vroegscholen die de kinderen bezochten, door middel van observaties op de groepen en vragenlijsten voor pedagogisch medewerkers. De dataset van de inspectie bevat gegevens over het vve-beleid van gemeenten en de kwaliteit van voor- en vroegscholen op basis van inspecties. Deze gegevens zijn verzameld tijdens toezichtactiviteiten tussen 2010 en 2019 en met behulp van aanvullende vragenlijsten die in 2017 en 2019 werden opgehaald.

Kwaliteit van het gemeentelijk vve-beleid

Overheden hebben verschillende instrumenten om het aanbod en de kwaliteit van vve te stimuleren via hun vve-beleid: subsidies, prestatieafspraken en coördinatie. In Hoofdstuk 2 onderzochten we de relatieve bijdrage van deze instrumenten aan de kwaliteit van het vve-beleid in het decentrale vve-stelsel in Nederland. We gebruikten de variatie tussen gemeenten in de kwaliteit van het vve-beleid, onafhankelijk beoordeeld door inspecteurs. We bestudeerden de relatieve bijdrage van drie beleidsinstrumenten aan het vve-beleid: uitgave per doelgroepkind, prestatieafspraken en coördinatie. De resultaten laten zien dat prestatieafspraken en coördinatie samenhangen met de kwaliteit van het vve-beleid in een gemeente. Actief vve-beleid, gebaseerd op prestatieafspraken en gericht op afstemming, coördinatie, monitoring en evaluatie van afspraken lijkt het meest effectief te zijn voor een hoge kwaliteit van het gemeentelijk vve-beleid. De opmerkelijke bevinding was dat de uitgaven per kind juist minder of niet samenhingen met de kwaliteit van het vve-beleid in gemeenten. Dit betekent dat sturing van de overheid zich het beste kan richten op duidelijke doelen, afspraken, monitoring en evaluatie, en coördinatie van vve.

Gemeentelijk vve-beleid en de kwaliteit van voorscholen

In Hoofdstuk 3 onderzochten we de invloed van gemeenten op de proceskwaliteit van voor- en vroegscholen in de context van een geprivatiseerd en gedecentraliseerd vve-systeem met zowel for-profit als not-for-profit aanbieders. We onderzochten de relatie tussen gemeentelijk vve-beleid en de kwaliteit van voorschoolse educatie in een steekproef van 157 voorscholen, in 36 gemeenten in Nederland, met in totaal 299 kwaliteitsobservaties die in 2010 en 2012 werden uitgevoerd. De resultaten toonden significante verschillen tussen gemeenten in de geobserveerde emotionele en educatieve proceskwaliteit in de voorscholen: 23% van de variantie in emotionele proceskwaliteit en 14% van de variantie in educatieve proceskwaliteit kon worden toegeschreven aan het gemeentelijke niveau. In tegenstelling tot onze verwachtingen, en in tegenstelling ook tot de officiële beleidstheorie, bleken de verschillen tussen gemeenten in emotionele en educatieve proceskwaliteit niet gerelateerd te zijn aan de formele naleving van de wettelijke vereisten door de gemeenten. Verkennende analyses gaven echter aanwijzingen dat een meer inhoudelijke, missie-gedreven ‘soft’ governance door de

gemeente van het lokale netwerk van vve-aanbieders, *wel* samenhing met, met name, de educatieve proceskwaliteit van de voorscholen. De variabele netwerksturing omvatte vve-beleid dat zich richt op het ondersteunen van ouders van kinderen in een achterstandssituatie, het stimuleren van ouders om hun kinderen deel te laten nemen aan vve, en de coördinatie van professionele ontwikkeling en kwaliteitsbewaking. Daarom is een meer uitgesproken focus op het stimuleren en monitoren van lokale netwerksturing aan te bevelen.

Gemeentelijk vve-beleid en de kwaliteit van de vroegscholen

In Hoofdstuk 4 onderzochten we hoe kenmerken van het gemeentelijke vve-beleid samenhangen met de implementatie van onderwijsachterstandenbeleid in de vroegscholen. In dit onderzoek richtten we ons op vier indicatoren van effectieve implementatie van het onderwijsachterstandenbeleid, namelijk stimulering van academische vaardigheden, spelbegeleiding, stimulering van sociaal-emotionele vaardigheden en het leren omgaan met culturele verschillen in de groep. Er werd een multilevel-regressieanalyse toegepast om te bepalen welk aandeel van de variantie in de genoemde indicatoren kon worden toegeschreven aan, respectievelijk, de klas, de school, het schoolbestuur en de gemeente. De resultaten toonden variantie in de implementatie van onderwijsachterstandenbeleid in de vroegscholen die vooral op het niveau van de klassen en de scholen lag. In tegenstelling tot onze verwachtingen, en ook in tegenstelling tot de wettelijke verantwoordelijkheid van de schoolbesturen en de gemeenten voor de implementatie van het onderwijsachterstandenbeleid, was er weinig of geen variantie geassocieerd met de schoolbesturen of de gemeenten.

Deze uitkomsten zijn opmerkelijk. Ondanks het feit dat schoolbesturen een hoge mate van autonomie èn verantwoordelijkheid hebben en extra middelen krijgen via de lumpsum om effectief onderwijsachterstandenbeleid te voeren, lijken ze weinig tot geen invloed uit te oefenen op de implementatie van het onderwijsachterstandenbeleid in de vroegscholen. Gemeenten hebben in het onderwijsachterstandenbeleid een wettelijke coördinerende taak, maar beschikken kennelijk over onvoldoende instrumenten om de implementatie van het beleid op vroegscholen effectief te beïnvloeden.

Op klasniveau vonden we dat de samenstelling van de groep van invloed was: bij een groter aandeel leerlingen met andere thuistaal was de implementatie van het onderwijsachterstandenbeleid volgens de vier indicatoren beter. Dat zou erop kunnen wijzen dat leerkrachten en scholen wel degelijk inspelen op de onderwijsbehoeften van hun kinderen, maar niet dankzij de regie van hun bestuur of gemeente.

Gemeentelijke netwerksturing en de kwaliteit van de voor- en vroegschoolse educatie

Een continue hoge kwaliteit van vve vereist samenwerking en coördinatie tussen vve-aanbieders en andere betrokkenen bij vve op lokaal niveau. In Hoofdstuk 5 onderzochten we hoe lokale overheden, in een gedecentraliseerd, gefragmenteerd en hybride systeem zoals het Nederlandse vve-systeem, omgaan met de uitdaging om een hoge kwaliteit van vve te

waarborgen, ouders te ondersteunen en te betrekken, en de continuïteit tussen de voor- en vroegscholen te versterken. We gebruikten gegevens uit onderzoeken die de Inspectie van het Onderwijs in 2016 en 2019 uitvoerde in voor- en vroegscholen, en gegevens over lokale netwerk governance uit een parallel onderzoek van de inspectie. Zonder sterke a priori hypotheses, voerden we een clusteranalyse uit op een reeks van kenmerken van lokale netwerksturing, afgeleid uit een theoretisch model van collaboratieve netwerksturing, om clusters van gemeenten te identificeren naar sturingsaanpak. We vonden dat de gemeenten in vier verschillende typen van lokaal netwerkbestuur konden worden verdeeld.

Met behulp van variantie analyse onderzochten we vervolgens of het type sturing van een gemeente samenhing met de kwaliteit van de voor- en vroegscholen binnen die gemeente. We vonden statistisch significante en trendmatige verschillen naar drie van de vier kwaliteitsindicatoren: educatieve proceskwaliteit, ouderbetrokkenheidsbeleid en implementatie van een doorgaande lijn tussen voor- en vroegscholen. Lokale netwerksturing die gekenmerkt wordt door formeel, in convenanten vastgelegde, missie-gedreven, intensieve samenwerking tussen netwerkpartners onder een inspirerend gemeentelijk bestuur, hing positief samen met een aanzienlijk hogere vve-kwaliteit in de voor- en vroegscholen.

Conclusies

Het moge duidelijk zijn dat het niet eenvoudig is om te sturen op de kwaliteit van voor- en vroegschoolse educatie in een systeem dat zo complex is als het Nederlandse systeem. De overheid heeft verschillende sturingsinstrumenten om de kwaliteit van vve te verhogen. De resultaten in deze dissertatie laten zien dat twee instrumenten lijken bij te dragen aan de kwaliteit van vve en de implementatie van OAB, namelijk 1) het versterken van de regie van gemeenten, gebaseerd op geformaliseerde, missie-gedreven netwerksturing, waarbij intensief wordt samengewerkt in het netwerk en er sprake is van sterk inspirerend bestuur, en 2) het maken van afspraken gericht op het verbeteren van de kwaliteit van vve. Deze instrumenten lijken bij te dragen aan een verhoogde vve-beleidskwaliteit van gemeenten en hogere kwaliteit van vve op de voor- en de vroegscholen.

Het hervormen van de structuur van een complex systeem is geen gemakkelijke taak die bovendien op de nodige weerstand zal stuiten, maar aanpassingen in de *aansturing* van een complex systeem zijn misschien gemakkelijker door te voeren. Oplossingen kunnen liggen in het formuleren van nieuwe richtlijnen en het maken van concrete afspraken over de te bereiken resultaten, gekoppeld aan de subsidies voor onderwijsachterstandenbeleid. Daarnaast kan een intensivering van de missie-gedreven samenwerking in het lokale netwerk, zowel op bestuurlijk als op uitvoeringsniveau, bijdragen aan verbetering van de implementatie van het onderwijsachterstandenbeleid. De verplichting voor schoolbesturen en scholen om het (gezamenlijk vastgestelde) lokale onderwijsachterstandenbeleid te vertalen naar het uitvoeringsniveau kan daar ook toe bijdragen. Vooral wanneer deze oplossingen ondersteund worden door regelgeving gericht op de inhoud (bijvoorbeeld door richtlijnen voor een

doorlopend curriculum in de voor- en vroegschoolse periode) als op het proces (bijvoorbeeld door richtlijnen voor de lokale netwerksamenwerking). Tot slot zou de Inspectie van het Onderwijs het gehele systeem kunnen monitoren: van het proces en de inhoud van het beleid tot en met de uitvoering van het beleid en de kwaliteit op de voor- en vroegscholen met als uiteindelijk doel de kwaliteit van de voor- en vroegscholen te verhogen, zodat we alle kinderen gelijke kansen kunnen bieden om zich optimaal te ontwikkelen, ongeacht de omgeving waarin zij opgroeien.

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