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Master thesis

Exploring the development of school
readiness in kindergarten in Norway:

A case study of the implementation of the

Gausdal Model

Master of public health

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*No man is an island,
Entire of itself,
Every man is a piece of the continent,
A part of the main.*

John Donne

The time as a masters student in public health has come to an end, and it is time to look back on what I have learnt. Writing a masters thesis was like a journey into the unknown. Appreciating that process has been an important learning experience for me. This study has given me the opportunity to see things that I knew in a new perspective as well as getting new knowledge. Doing the research and writing process off campus has at times been lonely. Still, I have not done this journey entirely alone.

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Kari Larsson Finstad, Sør-Fron, November 2015

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Abstract

Background: This research was initiated by a request from Gausdal municipality to have a master's thesis written about the sensori-motoric project the Gausdal Model. One of the aims of the Gausdal Model is to better prepare children for school through a programme based on proportionate universalism. **Aim:** The aim was to explore key stakeholders understandings of school readiness and generate in-depth knowledge about their processes of implementation of the Gausdal Model. This could shed light on processes that develop children's motor proficiency and its possible relation to school readiness. **Methods:** A case study of the implementation of the Gausdal Model was carried out in order to explore key stakeholders' understanding of school readiness. The sample was strategic and the nine kindergarten teachers and parent informants were recruited from four municipal kindergartens in Gausdal. The health nurse connected to the programme was also an informant. Data were collected through qualitative interviews, partly informed by prior observations of the activities in the programme. The data analysis was inspired by principles from grounded theory as described by Charmaz (2014). The analysis aimed to identify components that could shed light on the processes that was studied. Bronfenbrenner's ecological systems theory and Bandura's social cognitive theory (SCT) and concept self-efficacy (SE), in particular were used as sensitising concepts in order to analyse the data and generate an understanding of how the Gausdal Model could develop children's motor proficiency, and how this might be related to children's school readiness. **Results:** The findings from the implementation of the Gausdal Model show that children's motor proficiency can be understood as being developed through a process of socialisation where support through strong mesosystems and significant others, in this case kindergarten teachers and parents, could help develop the children's mastery of their own bodies. At the mesosystem-level, quality and quantity of communication and aiming consistently towards the same goals was important. At the microsystem level, a combination of the four sources of SE and relational qualities between the kindergarten teachers and children seemed to develop children's motoric SE and mastery of their own bodies. Motor proficiency seems to be related to school readiness through both the transferability of certain components of motoric SE as well as a social dimension, as social inclusion was an important component of school readiness. Hence, motor proficiency was related to a multidimensional understanding of school readiness. **Conclusion:** The Gausdal Model is in line with public health recommendations of early intervention and proportionate universalism, and has the potential to better prepare children for school as well as contributing to children's socialization in general.

Norsk sammendrag

Bakgrunn: Denne forskningen ble initiert av en forespørsel fra Gausdal kommune om å skrive en masteroppgave om det sanse-motoriske programmet Gausdalsmodellen. Et av målene for Gausdalsmodellen er å gi barn et bedre utgangspunkt for skolestart gjennom tiltak for alle – for å nå de få og styrke alle. **Mål:** Å utforske barnehagelærere, foreldre og helsesøsters forståelse av hva det vil si å være skoleforberedt og generere kunnskap om gjennomføringen av Gausdalsmodellen. Dette kan belyse prosesser som utvikler barnas motoriske ferdigheter, samt en mulig sammenheng mellom dette og det å være skoleforberedt. **Metoder:** En kasus-studie av gjennomføringen av Gausdalsmodellen og barnehagelærere, foreldre og helsesøsters forståelse av hva det vil si å være skoleforberedt. Utvalget er strategisk og ni informanter (barnehageansatte og foreldre) ble rekruttert fra fire kommunale barnehager i Gausdal. En helsesøster som arbeider med Gausdalsmodellen er også informant. Data ble samlet inn gjennom kvalitative intervjuer som blant annet ble utarbeidet på bakgrunn av observasjoner av aktiviteter i Gausdalsmodellen. Analysen av datamaterialet er inspirert av prinsipper fra grounded theory beskrevet av Charmaz (2014). Analysen tar sikte på å identifisere komponenter som kan kaste lys over de prosessene som ble studert. Bronfenbrenners utviklingsøkologiske modell og Banduras sosial kognitive teori og konseptet mestringsforventning, ble brukt for å for analysere datamaterialet og forstå hvordan gjennomføringen av Gausdalsmodellen kan utvikle barnas motoriske ferdigheter, samt hvordan disse ferdighetene kan knyttes til det å være skoleforberedt. **Resultater:** Funnene viser at barns motoriske ferdigheter kan forstås som å bli utviklet i en sosialiseringssprosess der støtte fra sterke mesosystemer og signifikante andre, i dette tilfellet barnehagelærere og foreldre, er av betydning. På mesosystem-nivå gjennom kvantitet og kvalitet på kommunikasjon og en felles målsetning rundt barnets utvikling. På mikronivå synes en kombinasjon av relasjonelle kvaliteter mellom barnehagelærerne og barna, og kilder til utvikling av barnas mestringsforventning, å bidra til barnas motoriske utvikling og kroppslige mestring. Motoriske ferdigheter synes å være knyttet til det å være skoleforberedt, både gjennom overførbarhet av visse komponenter av motorisk mestringsforventning, samt gjennom en sosial dimensjon hvor sosial inkludering var viktig for at barna skal være skoleforberedt. Derfor er motoriske ferdigheter knyttet til en helhetlig forståelse av hva det vil si å være skoleforberedt. **Konklusjon:** Gausdalsmodellen er i tråd med folkehelseanbefalinger om tidlig intervensjon og proposjonell universalisme og har potensiale til å forberede barna til skolestart i tillegg til å bidra i en generell sosialiseringssprosess.

1. Introduction

1.1 Background and rationale

Despite an overall high level of health and well-being among children and young people in Norway, a substantial number of children fail, to varying degrees, to master school (Norwegian Ministry of Health and Care Services [HOD], 2013). The high school (videregående skole) drop-out numbers have for several years remained stable around 30 %, which is relatively high compared to other similar countries (Organisation for Economic Co-operation and Development [OECD] 2014). In a public health perspective, this is of concern, since a substantial amount of research has shown the connection between educational level, personal income and health status (Dahlgren & Whitehead, 2006; Gustavsen, 2011; HOD, 2007; HOD, 2013; Marmot Review, 2010; Wilkinson & Pickett, 2010).

Although a family's socioeconomic background is the strongest predictor of children's success in the education system (Dahlgren & Whitehead, 2009; Gustavsen, 2011; HOD, 2007; Marmot Review, 2010; OECD 2014; Pugh, 2010; Wilkinson & Pickett, 2010), it is widely recognised that kindergartens and schools are important arenas of socialisation (Bø, 2012; HOD, 2007; HOD, 2013; Marmot Review, 2010). Kindergartens and schools have also been identified as having a role as health (in its widest sense) promoting arenas (Helsedirektoratet, 2008; Helsedirektoratet, 2012; HOD, 2007; HOD, 2013). The internationally recognized Marmot Review (2010) gives recommendations to reduce the social determinants of health that build on experiences from existing programmes and are informed by evidence of what works. It is recommended to “increase the proportion of overall expenditure allocated to the early years and ensure expenditure on early years development is focused progressively across the social gradient” (p. 95). This progressive focus across the social gradient, is referred to as proportionate universalism. This means universal actions “with a scale and intensity that is proportionate to the level of disadvantage” (Marmot, 2010, p. 9). In the Norwegian context, the acknowledgement of the impact of people's living conditions and environment during childhood on education and health are found in several policy documents. According to the former government's white paper, *National Strategy to reduce social inequalities in health*: “kindergartens and schools can help reduce social inequalities in health through reduction of social inequalities in learning” (HOD, 2007, p. 36). In the latest public health report from the new government, it is recognised that high quality kindergartens can contribute in providing

children with equal opportunities. It claims that efforts towards accomplishment in education must be seen in a life course perspective, where cooperation between kindergartens, primary schools and other relevant authorities are important in order for children to have a good social, cognitive, emotional and physical development (HOD, 2015). Several kindergarten interventions and programmes to better prepare children for school have been developed worldwide, among them programmes that focus on developing children's motor proficiency, as this seems to be connected to enhanced learning capacity (Brown, 2010; Callcott, Hammond & Hill, 2014; Goodway & Branta, 2003; Pienaar, Van Rensburg & Smit, 2011). In Norway, 79.5 % in the age group one-two years, and 96.5 % in the age group three-five years go to kindergarten (Statistics Norway, 2012). Hence, kindergarten interventions have the potential to reach a very large proportion of the early years population with programmes based on proportionate universalism, which the Marmot review (2010) recommends as a good measure to reduce the social determinants of health.

1.2 Objective and research questions

An early intervention programme that seems to be in line with the Marmot Review recommendations about proportionate universalism as well as the Norwegian policy recommendations about early intervention, is the Gausdal model in Gausdal municipality, Norway. This sensori-motoric programme is underpinned by an understanding of the effect that socio-economic background has on children's chances to succeed in school and later in life, and aims to better prepare all kindergarten children in Gausdal municipality for primary school. The Gausdal Model is a universal sensori-motoric programme, because it is believed that this is beneficial to all children as well as providing an opportunity to reach children that might have developmental problems at an early stage (Gausdal Kommune, n.d; Thorsen, 2013). This is in line with the Marmot review (2010) recommendations to focus expenditure and effort to the early years, in order to 'correct' early developmental problems before they are able to develop throughout the life course.

Many intervention studies have shown the beneficial effects of motor interventions on academic achievement, and a relationship between motor proficiency and academic achievement seems to be quite well established. Often, research refers to cognitive function as related to academic achievement (Becker, Miao, Duncan & McClelland, 2014; Etnier & Chang, 2009; Roebers et al., 2014; Tomprowsky, Miller & Naglieri, 2008; Tomprowsky, Lamborne & Okomura, 2011;

Van der Niet, Hartman, Smith & Visscher, 2014). Sherry and Draper (2013) refers to the term early childhood development, which includes “sensory-motor, socio-emotional and cognitive-language aspects” (p. 1301). They refer to Grantham-McGregor et al. (as quoted in Sherry & Draper, 2013) and state that “of these, cognitive skills are most often used as an indicator for general development” (p. 1301). They (Sherry & Draper, 2013) explain this by saying that cognitive skills “have the advantage of being arguably more amenable to objective assessment than socio-emotional skills and perhaps less vulnerable to cultural interpretations” (p. 1301). This could partly explain the frequent use of cognitive function as a measure for school readiness and academic achievement. Further, they refer to research by Heckman and Masterov (as cited in Sherry and Draper, 2013), who argue that for life achievement- in their case defined as occupational success and productivity- perseverance and motivation are more likely to determine success than cognitive factors. On this basis, one can assume that factors other than cognitive function could be related to children’s school readiness and academic achievement. Quantitative research has looked for possible mediating factors between physical activity and motor proficiency, and academic achievement, but qualitative insight into the processes that take place in these interventions seems scarce. With the Gausdal Model, there is an opportunity to take a closer look at key stakeholders, such as kindergarten teachers, health nurse and parents, understandings of school readiness in order to generate in-depth knowledge about their processes of implementation. This could shed light on processes that develop children’s motor proficiency (and other related skills, such as those related to socio-emotional competence) and its possible relation to school readiness. On this basis, four research questions were developed:

- *How do key stakeholders (kindergarten teachers, parents and the health nurse) understand ‘school readiness’?*
- *How is the Gausdal model implemented in practice?*
- *Through what processes (if at all) does the Gausdal model influence the children’s motor proficiency?*
- *How (if at all) is motor proficiency related to children’s development of school readiness?*

2. Developing school readiness in kindergarten children: a critical review of the literature

2.1 Introduction

To shed light on the process of developing school readiness in kindergarten children, it has been necessary to review research in several related fields. The first section explores how school readiness has been defined in various fields. The second section presents empirical research that specifically relates motor proficiency to school readiness. Several intervention studies have aimed at developing children's motor proficiency as a way of preparing them for school and enhancing their academic achievement. Lastly, research on what characterizes effective interventions and high quality kindergartens are presented. All this knowledge provides a foundation for explaining the processes in which the Gausdal model might influence the children's motor proficiency, and how (if at all) this motor proficiency is related to children's development of school readiness.

2.2 A multidimensional view on school readiness

A single standard for school readiness has been difficult to determine, especially since children are not all the same and develop at different rates. However, there is some consensus that the socioemotional context at the arenas in which learning occurs (including home, school and the wider community) as well as the abilities within every child and the interaction between these factors are important in shaping school readiness. That is to say, the concept of school readiness is generally viewed as multidimensional or holistic (Hair, Halle, Terry-Humen, Lavelle & Calkins, 2006; Janus & Duku, 2007). Janus and Duku (2007, p. 376): "this broader view of school readiness stands in sharp contrast to an approach that uses measurements of children's cognitive capacities as indicators of their school readiness. Such narrow scope is limited in its usefulness". This view is in line with the assumption expressed in the introduction that factors other than cognitive function could be related to children's school readiness and academic achievement.

In a multidimensional view on school readiness, the interaction and communication between parents and kindergartens could also be included. Magnusson, Meyers, Ruhm and Wladfogel (2004) refer to studies that underline the importance of parents' involvement in their children's

schooling as one of several factors that influence children's achievement. This is also the message in a report by Nordahl (2000) on parent involvement in schools in Norway. Good cooperation between parents and schools seems to be the ideal, but turns out to be far from the reality in many schools. One of the qualities that could characterise this cooperation is the inclusion of all kinds of parents, independent of, for example, ethnicity or parents' educational level. It seems, at least to some extent, that parents with higher educational background experience a better cooperation with the school than parents from ethnic minorities and with low educational level. Although these studies connect parent involvement to children's achievement in school, one could assume that parent involvement and communication between kindergarten and home could be beneficial also for children's school readiness and in turn their academic achievement.

According to Wesley and Byusse (2003), a number of studies highlight several child qualities related to school readiness: good health, both physically and mentally, good communication skills, and curiosity and enthusiasm towards learning. According to Magdalena (2013) "school readiness involves the command of basic abilities and aptitudes which allow the child to function successfully in the school environment, to adapt both academically and socially" (p. 29). According to her, the adjustment that children need to do in order to adapt to a school environment that is different from the kindergarten environment, is a turning point in their development. In school, activities last longer, the periods of inactivity and listening become longer, and they are facing more routines, and are given less time to play.

According to her,

the demands and requirements of school include a new dominant activity – school learning, meeting the demands, routines and expectations of the schoolteacher; the acquisition of new interpersonal abilities such as independence, responsibility, self-control but also interpersonal ones – cooperation, relations with the new classmates, the affiliation to a new group of peers; the confrontation with new social and academic changes as well as the development of the strategies to lead them. (p. 33)

Magdalena (2013) refers to research that identifies five abilities and aptitudes that seem to contribute to this adjustment process as well as the optimization of the learning activity: motor

and physical development, cognitive competences, social and emotional competences, pre-academic abilities and personal characteristics.

Research by Ladd (1990) found that having friends was an important factor in children's school adjustment. His findings indicated that "making new friends in the classroom was associated with gains in school performance, and early peer rejection forecasted less favourable school perceptions, higher levels of school avoidance, and lower performance levels over the school year" (p. 1081). Further research by Ladd, Kochenderfer and Coleman (1996) found that the quality of the peer relations in kindergarten also seemed to be important for school adjustment, saying that "young children can reliably distinguish among differing friendship processes and that their perceptions of these processes are differentially predictive of both relationship and school adjustment outcomes" (p. 1117).

2.3 Motor proficiency in relation to school readiness

In this study, one of the aims is to look at how motoric skills might be related to school readiness, a central feature of the Gausdal Model. Research has found that physical activity and motor proficiency seem to correlate with academic achievement, particularly through executive function (Becker et al., 2014; Roebbers, et al., 2014; Tomprowsky, et al., 2008; Tomprowsky et al., 2011; Van der Niet, et al., 2014) which is associated with goal-directed behaviour (Etnier & Chang, 2009). The cognitive development of each individual and its influence on academic achievement can be seen as one dimension of school readiness, but as Janus and Duku (2007) and Sherry and Draper (2013) suggest, children's cognitive capacity is not the only indication of their school readiness.

Research on children's motor development emphasizes how motor skills are developed in close relation between potential qualities within the child (genes) and the children's social environment (Berg, 2002; Haga & Sigmundsson, 2004; Hannaford, 2005; Moser, 2013a; Moser 2013b; Osnes, Skaug & Kaarby, 2010; Pedersen, 2005). Motor proficiency is seen as an important part of the development of children's social skills and social relations as well as their curiosity towards their environment (Gehris, Gooze & Whitaker, 2014; Mjaavatn & Gundersen, 2005; Moser, 2013a; Moser, 2013b; Osnes et al., 2010), and learning capacity (Hannaford, 2005). Moser (2013a) elaborates the importance of children's mastery of their own body in relation to the development of their social skills, by saying that children's experiences in kindergarten are first and foremost bodily and perceptible, which means that their bodies and

their senses is the focal point for their exploration of the world, including the social world of which they are a part. The interplay with their surroundings is related to their bodies, and good feelings as well as bad feelings are expressed through their body language. How the children position themselves and how they are positioned in the social hierarchy are highly related to their bodies and their movements. According to Moser (2013b), children's motor skills are important for their social position and attractiveness as playmates, and therefore differences between children become particularly evident through their movement skills.

In a study by Gehris et al., (2014), focus groups with teachers from a Head Start programme in Pennsylvania (US) were conducted to reveal teachers' perceptions about children's movement and learning. According to those teachers, movement builds children's confidence and social skills, and hence prepares them for school in particular and life in general. The researchers found that "it appears that when teachers move together with children this strengthens the emotional bond between teachers and children. Teachers also expressed that children needed to feel trust in their teachers to be willing to try new movement skills" (Gehris et al., 2014, p. 129). They also found that teachers "suggested that the self-confidence children develop from acquiring new physical skills carried over to classroom learning and provided children with the confidence to learn academic content" (p. 129).

On this basis, motor proficiency can be said to be related to several of the child qualities and social prerequisites that Ladd (1990), Ladd et al. (1996), Magdalena (2013), and Wesley and Byusse (2003) identified as being related to children's school readiness. According to the knowledge in the field, it seems as though motor proficiency has the potential to influence school readiness through its influence on children's cognitive function as well as their social skills and self-perceptions.

2.4 Interventions to develop motor skills

Early childhood is identified as the golden age in human development and motor skills development, and interventions in this age group are therefore recommended (Draper, Achmat, Forbes & Lambert, 2012; Logan, Robinson, Wilson & Lucas, 2011; Sherry & Draper, 2013). Research reveals several interventions that, to a varying extent, resemble the Gausdal model. What they have in common is that they are explicitly designed to improve motor skills in children as an aspect of developing children's readiness for school and academic achievement.

Goodway and Branta (2003) found in an American 12-week motor skill intervention on fundamental motor skill development of disadvantaged children, large gains in both locomotor and object control skills. The control group that had their usual physical activity in their preschool programme did not make any gains in their locomotor percentile scores. The authors concluded that a lack of organized approaches to the play component could account for this. Hence, they found that their work corresponded with findings by Miller (as cited in Goodway & Branta, 2003), who found better development of fundamental movement skills in children who received an intervention with a direct instruction component compared to those who had experienced a well-equipped playgroup only.

In South Africa, Pienaar et al. (2011) evaluated a seven-month perceptual-motor development programme for preschool children. This Kinderkinetics programme, described as scientifically based and developmentally appropriate, consisted of components of locomotor skills, body awareness, balance, body coordination, hand-eye and foot-eye coordination and fine motor skills. Results showed that it “was effective in significantly improving the pre-schooler’s fine motor, gross motor, perceptual motor and overall motor abilities, as well as significantly improving selected cognitive concepts and attentive and observation skills” (Pienaar et al, 2011, p. 126), which they refer to as important foundations for the learning process in school.

The studies referred to above are quantitative studies measuring gains in motor ability. These interventions seem to have raised children’s motor proficiency level, particularly among those from a disadvantaged background, and hence possibly their school readiness. What is not focused upon in such studies, are the qualities that characterise effective interventions and raise children’s motor skills. This is one of the key messages from Logan et al.’s (2011, p. 313) meta-analysis: “From a research standpoint, it is important to continue to determine the most effective characteristics of motor skill interventions (i.e. minutes of instruction time, instructional approaches) to shape policy and curriculum recommendations of structured movement programmes in early childhood settings”. This leads towards research on what characterizes effective interventions and high quality kindergartens.

2.5 What are the characteristics of effective interventions and high quality kindergartens?

To meet Logan et al.’s (2011) recommendations that future research should focus on what characterizes effective motor interventions, it is valuable to look at what characterizes effective

interventions that have been aimed at narrowing the gap that social background has on school readiness. This seems particularly relevant as the aim of the motor interventions earlier referred to was to reduce the impact of social background on school readiness. Since the methods of the Gausdal model are now implemented as a part of the everyday life of the kindergartens in Gausdal municipality, it is also relevant to include knowledge about characteristics of high quality kindergartens.

In a study that identified socioeconomic, family and health factors associated with children's school readiness to learn, Janus and Duku (2007) claimed that "although we can address many of the factors that contribute to the school readiness gap one by one with every child, another strategy, a universal prevention, albeit targeted at the identified population characteristics, likely has larger chances of success than the individual intervention" (p. 399). This in line with the aforementioned recommendations about proportionate universalism from the Marmot review (2010). Pugh (2010, refers to a review of research for the Narrowing the Gap Project (UK) that "concluded that interventions focused on children in their early years do have the potential to improve outcomes that are fundamental to future life chances, as well as narrowing the gap between disadvantaged and other children" (p.12). Ramey and Ramey (2004) reached the same conclusion in a review article based on randomized controlled trials, which looked at whether early interventions can make a difference on the impact of socio-economic background on school readiness. In the review of the Narrowing the Gap project, Springate, Atkinson, Straw, Lamont and Grayson (as quoted in Pugh, 2010) identified four cross-cutting themes related to successful practice:

- The involvement of parents in any interventions, particularly those which encourage parents to support their children's learning and create what the EPPE project identified as a positive home learning environment. Such interventions can also address family problems which may be impacting negatively on children.
- Interventions which are of high quality and which are delivered by qualified and skilled professionals, using approaches which have a sound evidence base.

- Interventions which meet the specific needs of the individual child and his/her family, usually based on sound assessment to ensure that activities can be tailored to individual need.
- Interventions which build constructive relationships between adults and children, from early attachments between parents and carers in the early months of a child's life, and support for parents as their children grow up, through to good relationships between early years practitioners and children in early years settings and an emphasis on developing social skills. (p. 12)

In a review article on the effectiveness of motor skill interventions in children, Logan et al. (2011) conclude that, “motor skill interventions are effective in improving FMS [fundamental movement skills] in children. Early childhood education centres should implement ‘planned’ movement programmes as a strategy to promote motor skill development in children” (p. 305). Logan et al. (2011) emphasize that although kindergartens and schools are good arenas for implementation of motor skill development programmes, sufficient training for teachers with responsibility for implementing the programme is important for quality of implementation. Murata and Tan (2009) emphasise the importance of interdisciplinary cooperation between preschool teachers, physical educators, physical therapists and occupational therapists in teaching motor skills for pre-schoolers with developmental delays. They recommend that when planning motor development programmes, this interdisciplinary group:

should design activities that first address preschool readiness skills such as imitation skills, bilateral integration and sequencing skills, and spatial awareness skills – with careful consideration for the special needs of the child. The team should employ consistency in their choice of vocabulary, behavioural support, and feedback to the child. (p. 488)

The Gausdal model is in line with the recommendations from Murata and Tan (2009) as interdisciplinary cooperation between the kindergarten teachers, the child physiotherapist and the health nurse is, in theory, part of the methods. Murata and Tan (2009) refer to motor

interventions intended for children with developmental delays, whereas the Gausdal model is aimed at all children in the kindergartens with extended help for children with developmental delays. In this way the benefits of interdisciplinary cooperation are provided for all children. According to Logan et al. (2011), the programmes should be ‘planned’, i.e. not just providing more time for free play. Since motor ‘development’ is the term used to describe these interventions, one can be led to think that this describes a natural maturation process that might take place through free play. According to Clark (as quoted in Logan et al. 2011), this is not the case: “these skills need to be learned, practiced and reinforced. Motor skill interventions consist of planned movement activities that are developmentally and instructionally appropriate” (p. 306). A limitation of the studies Logan et al. (2011) reviewed was that most studies included children that, due to biological or environmental factors, were developmentally delayed or at risk of being so. On the other hand, they claim that this could at the same time be the strength of their review study, as it shows that children from a background that could somehow cause developmental delays greatly profit from such programmes.

When introducing a new programme, like the Gausdal model, the people that are to implement it, in this case the kindergarten teachers play an important role. According to Van Veen and Slegers (as quoted in Ketelaar, Beijaard, den Brok & Boshuizen, 2012), “how teachers respond to innovations largely depends on whether they perceive their professional identities as being reinforced or threatened by such proposed changes” (p. 992). The teachers tend to make deliberate choices on their position in relation to the introduced programme based on how well its characteristics and demands fit with their personal beliefs, values and desires regarding education (Ketelaar et al., 2012). The central focus of Ketelaar et al.’s (2012) research “was to explore the relationship between teachers’ positioning towards an innovation and their implementation of it” (p. 992). They found that the “teachers’ feeling of ownership, their processes of sense-making, and their experiences of agency” (Ketelaar et al., 2012, p. 991) played an important role in the extent to which the teachers implemented the new role that was expected of them as part of the innovation.

In a qualitative study using teacher focus groups, Lara-Cinisomo, Fuligni, Daughtery, Howes and Karoly (2009) identified three types of preschool classroom experiences believed to be important for children’s successful transitions to the school setting: teacher–child interaction, learning environment, and, children’s learning opportunities. According to Lara-Cinisomo et al. (2009), their respondents identified five important factors in teacher–child interaction:

being supportive, establishing trust, encouraging individualization, being a role model and demonstrating mutual respect. Being supportive refers to supporting or encouraging the child's emotional and cognitive needs. Establishing trust refers to forming a trusting teacher-child relationship that allows the child to feel safe in the teacher's care. Encouraging individualization refers to the practice of treating each child as an individual, that is, paying attention to and responding to his/her individual needs. Being a role model refers to the teacher behaving in a manner that he/she wants the children to behave so children can see the behaviour modelled. Finally, demonstrating mutual respect is encouraging and showing mutual respect for one another. (p. 3)

The importance of the quality of the children-teacher relationship as well as the general quality of the relational environment of the classroom for children's adjustment to school are also the findings in a study by Birch and Ladd (1997).

In a review article looking at connections between kindergarten qualities and learning outcomes in school, Aukrust and Rydland (2009) identified two types of kindergarten quality: structural quality and process quality. The first typically refers to children-adult ratio, educational background of the staff, etc. which, according to the authors, in the Norwegian context are fairly similar between kindergartens. The latter refers to the quality of the learning environments that the children experience in the kindergarten (Aukrust & Rydland, 2009). According to Aukrust and Rydland (2009) "high process quality is usually defined as good interaction with peers and adults and opportunities for cognitively stimulating play, while poor process quality typically involve frequent negative interaction, aimless wandering and absence of challenges and stimulation" (p. 180, own translation). The authors concluded that studies looking at short term and long term effects of kindergartens underline that both structural- and process quality seems to be connected to later learning outcomes. Several of the studies they refer to have reported overall effects in relation to the quality of the kindergartens, while others report higher effects on children at risk caused by poverty or lack of parental support. The latter suggests that kindergartens have a protective effect on those children at risk.

2.6 Conclusion

This chapter has attempted to shed light on existing knowledge in several fields related to children's school readiness and motor proficiency. A multidimensional view on school readiness has been presented. Although not explicitly stated in the research, this view seems to be in line with Bronfenbrenner's ecological systems theory (1977; 1979; 1992), which will be presented in the next chapter. A possible relation between motor proficiency and school readiness has been explored, suggesting that this relation could go through more ways than cognitive function. The view that children's motor skills does not develop in a vacuum, but in interaction with the social environment also seems to be in line with Bronfenbrenner's theoretical perspective as well as Bandura's (1997) SCT. Still, Bandura's concept SE, could be seen as related to research by Roebbers et al. (2014) and Becker et al. (2014), who use the cognitive concepts self-regulation and executive function to explain the relation between motor proficiency and children's transition to school and academic achievement. Bandura's (1997) concept SE will be presented in the next chapter. As the Gausdal Model is a sensori-motoric programme that started as an intervention that is now implemented in all kindergartens in Gausdal, research on motoric interventions was included. As the aim of this study is to explore the implementation process of the Gausdal Model, research on what characterize effective interventions and high quality kindergartens has been presented.

3. Theoretical orientation

3.1 Introduction

An inductive strategy towards the connection between data and theory is often associated with qualitative research, meaning that theory is an outcome of empirical research. The distinction between an inductive and deductive approach is not always as clear-cut as it may seem, however. In research, it is often the case that an inductive approach can include deductive elements and vice versa (Bryman, 2012). Because the focus of this study is to illuminate the view of school readiness and experiences of the implementation of the Gausdal Model from the perspectives of key stakeholders, and because the research process was inspired by grounded theory, an inductive approach where concepts and theory emerged out of the data was the aim. Still, a theoretical preconception guided the selection of research areas and topics for study. In other words, it had a deductive element. According to Bryman (2012), in order not to ‘reinvent the wheel’ it is important to acknowledge what is already known in the field. The literature reviewed and knowledge of relevant theoretical perspectives along with knowledge and experience from former education and work, therefore guided the topic and formulation of the research questions in this study. As the data analysis revealed the emerging concepts, the theoretical perspectives that could help to understand these concepts became clearer. Bronfenbrenner’s ecological systems theory served as a framework for understanding the Gausdal model. The implementation of the Gausdal model could be understood on several levels of this system, the main focus in this study being the micro- and the mesosystem. One way of understanding the implementation of the Gausdal model at the microsystem level, is through Bandura’s SCT. These two theoretical perspectives will be briefly outlined below, and further elaborated in the discussion chapter. In addition to that, the Gausdal Model will be presented within the framework of Bronfenbrenner’s ecological systems theory.

3.2 Bronfenbrenner’s ecological systems theory

The Gausdal model can be understood with reference to Bronfenbrenner’s (1977) ecological systems theory, which states that:

the ecology of human development is the scientific study of the progressive, mutual accommodation, throughout the life span, between a growing human organism and the

changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded. (p. 514)

Although not explicitly stated, this understanding of the child as a social agent that develops in an ongoing interplay between him or her and the surrounding environment, is present both in the holistic view on school readiness and in the relation between motor proficiency and school readiness, referred to in chapter 2.

According to Bø (2012), Bronfenbrenner has a holistic and interdisciplinary understanding of human development, anchored in the intersection between biology and social science, and is one of the most commonly cited development psychologists in the last 50 years. Bronfenbrenner's (1977; 1979) model has been illustrated as circles that surround each other, like a set of Russian dolls, starting with the inner circle represented by the microsystem, then the mesosystem, the exosystem and finally the macrosystem. According to Bronfenbrenner's (1992) revised definition of the different levels in his ecological systems theory, the *microsystem* is: "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features and containing other persons with distinctive characteristics of temperament, personality, and systems of belief" (p. 148).

The *mesosystem* "comprises the linkages and processes taking place between two or more settings containing the developing person (e.g., the relations between home and school, school and workplace). In other words, a mesosystem is a system of microsystems" (Bronfenbrenner, 1992, p. 148). Such interconnections, Bronfenbrenner (1979) argues, "can be as decisive for development as events taking place within a given setting" (p. 3).

The *exosystem*

Encompasses the linkage and processes taking place between two or more settings, at least one of which does not ordinarily contain the developing person, but in which events occur that influence processes within the immediate setting that does contain that person

(e.g., for a child, the relation between the home and the parent's workplace ...).
(Bronfenbrenner 1992, p. 148)

Finally, the *macrosystem*

Consists of the overarching pattern of micro-, meso-, and exosystems characteristic of a given culture, subculture, or the broader social context, *with particular reference to the developmentally instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options, and patterns of social interchange that are embedded in each of these systems.* The macrosystem may be thought of as a societal blueprint for a particular culture, subculture, or the broader social context.
(Bronfenbrenner 1992, p. 148)

According to Bronfenbrenner (2001),

over the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate and external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of *time*. Such enduring forms of interaction in the immediate environment are referred to as *proximal processes*. (p. 6)

Which seems to be in line with the more commonly used term socialization. These processes, he says (Bronfenbrenner, 2001), are essential to human development, and can include “learning new skills; athletic activities; problem solving; ... performing complex tasks and acquiring new knowledge and know-how” (p. 6). According to Bronfenbrenner (1979), “active engagement in, or even mere exposure to, what others are doing often inspires the person to undertake similar activities on her own” (p. 6). According to Bronfenbrenner (2001),

the form, power, content and direction of the proximal processes producing development vary systematically as a joint function of the characteristics of the

developing person (including *genetic inheritance*); of the *environment* ... in which the processes are taking place; of the nature of the *developmental outcomes* under consideration; and the continuities and changes occurring in the environment over *time* (p. 6)

Bronfenbrenner's ecological systems theory may contribute with a framework for understanding the Gausdal model, which will be further elaborated in the next section. In chapter 6, the implementation of the Gausdal model at the micro-, meso-, and exosystem level will be further discussed.

3.3 Presentation of the case

Bronfenbrenner's ecological systems theory focus on the interaction between the developing human and its surroundings, from the microsystems level to the macrosystem. It therefore provides a framework for presenting and understanding the Gausdal model in relation to the social context of the case in question, as is recommended by Dopson (2003). The different levels of the ecological systems theory will serve as the framework for presenting the case.

3.3.1 The Gausdal model and the wider society and its foundation in the municipality

At the macrosystem level, the Gausdal model is developed in the context of the Norwegian society, with all that entails of values about childhood and education. As already mentioned, most Norwegian children go to kindergarten, hence, kindergarten interventions have a potentially good reach. This high rate of kindergarten attendance is the result of a wanted development by Norwegian policymakers at the beginning of the 21st century. In general, they argue, the Norwegian society appreciates that childhood has a value in its own right, and it is highly appreciated that the kindergarten plays an important part in children's lifelong learning (Norwegian Ministry of Education and Research [KD], 2013).

At this level, for the understanding of the context of the Gausdal model, it is relevant to give a description of Gausdal municipality in general. Gausdal municipality is located in the central part of Oppland county, and has 6141 inhabitants (1.1. 2011). Most of the population is situated in the proximity of the municipality centre Segalstad Bru. Agriculture and forestry is important

in Gausdal, and in 2001, 16 % of the inhabitants were employed in these primary industries. Secondary industry consists mainly of manufacturing of products from agriculture and forestry. Tourism is expanding in Gausdal, due to large areas of natural environments well suited for outdoor life. In 2001, 41% of the working population was employed outside the municipality, with Lillehammer being the most common place to work. There are eight kindergartens (four municipal and four private), four elementary schools, one comprehensive school (ungdomsskole) and one upper secondary school (videregående skole) in Gausdal (*Om Gausdal* [Gausdal municipality website], 2011; Svendsen, 2011). According to the Gausdal municipal masterplan (*Gausdal kommune inn mot 2026*, 2014), the education level in Gausdal municipality is below the national as well as the county average. In 2011, 35 % of the population in Gausdal had education at comprehensive school level. The Norwegian average is 28,6 %. In Norway, 29,1 % of the population has higher education (university or university college), while in Gausdal 17,5 % of the population has education at this level. These features of the Gausdal municipality are part of the macrosystem in which the Gausdal model operates.

The theoretical foundation of the Gausdal model can also be said to be found at the macrosystem level. The Gausdal model is built upon a recognition of the impact of social inequalities on health, and that health-promoting activities that include everyone give the best opportunity for development and growth for all children (Thorsen, 2013). Much of the theoretical background for the Gausdal model derives from knowledge from the Stavanger project, which is an interdisciplinary, extensive study of children's development in language, motor skills, maths and social skills. The aim of the study is to map children's development, within their natural environment when they are aged two and a half to ten years. They recognize the connectedness of the various domains which children's development is normally divided into (Lesesenteret, Universitetet i Stavanger, n.d). Thorsen (2013) refers to this study, which has followed children's development over time, by saying that "one can see a correlation between motor difficulties, language difficulties, attention difficulties, specific learning disabilities, emotional difficulties, social difficulties and perceptual difficulties. Motor skills are an early marker for other developmental problems" (p. 18, own translation). For further explanation of the theoretical background for the Gausdal model, Thorsen (2013) refers to research that see children's motor proficiency in relation to their performance in school subjects, with their self-perceptions as a possible mediating factor.

The background and rationale of the Gausdal Model can also be found at the macrosystem level. In Norway, the number of children that needs special education has grown, the numbers in

Gausdal municipality are higher than the Norwegian average and has increased throughout the last years, hence children and adolescents are one of the priority areas in the municipality masterplan (*Gausdal kommune inn mot 2026*, 2014). The municipality's approach to that work is similar to what the Marmot review (2010) refers to as proportionate universalism, and is expressed like this in the municipal masterplan (*Gausdal kommune inn mot 2026*, 2014) "offers for all, and measures for the few" (p. 6 own translation). Nearly all four year old children in Gausdal municipality go to kindergarten (Thorsen, 2015). The Gausdal model was initiated with a pilot group in one kindergarten in 2010. The background of the project was informed by knowledge about children's different premises for learning and participation when entering school and the influence of motor proficiency on learning, as well as a recognition that inactivity is an increased part of children's everyday life. In 2006, the municipality started a universal, interdisciplinary project named "God Skolestart" that was based on the aforementioned Stavanger project and adapted in Gausdal municipality. Because this programme reached all children, it also revealed many children with motor difficulties that could have profited from help at an earlier stage. Many children, some of them with substantial motoric- and complex difficulties were referred to the child physiotherapist. In the municipality organisation there was a recognition of the importance of changing the focus to early intervention, with preventive measures on group level together with an extra focus on children with special needs. The reason for a universal approach was to make sure that all children that might have developmental problems would be reached at an early stage. (Gausdal Kommune n.d.; Inger S. Thorsen, personal communication, October 7, 2014; Inger S. Thorsen, personal communication, July 1, 2015). The Gausdal model is firmly established within the municipality organisation, from the "floor" with kindergarten teachers to the "top" with the deputy major and her team, and a resolution to include the model in the municipal action plan was adopted in 2011. A collaboration with child physiotherapists at Sykehuset Innlandet (SI), Lillehammer and R-BUP (Infants and Toddlers Network) about kindergarten teachers skills development and use of the assessment tool ASQ-SE (Ages & Stages Questionnaires: Social-Emotional) was established and was of particular importance in the initiation of the project. There is still an ongoing cooperation with the child physiotherapist at SI. The programme is now implemented for children age three-six in all kindergartens in Gausdal (Thorsen, 2013; Inger S. Thorsen, personal communication, July 1, 2015). According to the project plan (Gausdal Kommune, n.d) the main target is:

Children in Gausdal should develop good motor, language and social skills to get a better base to learning and develop good academic skills. Motor proficiency will also give children a greater sense of mastery, a better quality of life and especially the joy of being in motion. (p. 9, own translation)

According to Thorsen (personal communication, July 1, 2015), the goal of the Gausdal Model is, on a systems level, to reach all children through the activities and hence also be able to reach those children who need extra support.

The macrosystems influence on the Gausdal model will not be further elaborated in this presentation, but is important to keep in mind, especially in relation to the theoretical generalisability of the findings from this research to other cultural contexts.

3.3.2 Educating and guiding the kindergarten teachers

As the exosystem refers to the linkage processes between one setting that contain the developing child and one or more that does not, the education of the kindergarten teachers in the methods of the Gausdal Model typically belongs here. As part of the implementation of the model, all employees in kindergarten and elementary school attended a three-day course on motor skills. They were trained in the Sherborne Developmental Movement and the screening tool EYMSC (Early Years Movement Skills Checklist) in order to have a better understanding of children's motoric development and more easily be able to detect skewed development (Chambers & Sugden, 2006; Gausdal kommune, n.d.; Thorsen, 2013). According to Thorsen (personal communication, July 1, 2015), today, kindergartens use this checklist to varying degrees, but the course gave them knowledge about children's motor development that is still valid, although the screening tool is not much in use. To structure the activities, the child physiotherapist has developed a developmentally appropriate annual cycle (appendix 2) with an associated ideas bank that focuses on different motor skills and activities throughout the year (Thorsen, 2013).

3.3.3 Cooperation and communication

One of the aims of the Gausdal model is a closer connection between the different participants who surround the child, such as the family, the teachers at the kindergarten and the health nurse. This is in line with what Bronfenbrenner refers to as the mesosystem. The 4-year consultation is a voluntary offer to all children in Norway. This means that it is up to the parents to decide

whether they and their children will attend or not. Normally this consultation takes place at the public health centre, and is conducted by the health nurse. As part of the Gausdal model, the health nurse offers to conduct the children's 4-year consultation within the kindergarten setting, instead of in her office at the centre. This provides a better opportunity to observe children's development within their everyday setting. The main part of the consultation, a conversation with the parents is carried out in the kindergarten, and if the parents want it, the kindergarten staff are invited to this conversation about the child's development. By doing this, they hope to develop a good cooperation between the health nurse, parents and kindergarten staff for the children's development (Inger S. Thorsen, personal communication, October 7, 2014).

3.3.4 Sensori-motoric activities in the kindergartens

At the microsystem level, the Gausdal models second foundation is a focus on motoric skills and physical activity in the kindergarten setting. The kindergarten teachers develop the children's fine-motor and gross-motor skills (with a pulse rising component), and sensory stimulation is integrated into both these components (Thorsen, 2013). The implementation of the sensori-motoric activities in the kindergarten are further elaborated in chapter 5.

3.3.5 Preliminary evaluation

Measurements using the Movement ABC2 test were taken with the 16 children in the pilot group before, during and after the intervention in 2010. At the first measurement, they found four of the children in the lowest five percentile, two in the 5-15 percentile and 10 in the 16-85 percentile. In 2012, 14 of the children were found in the 16-85 percentile and two were in the 91-95 percentile (Thorsen, 2013). This year, in conjunction with another master project on the Gausdal model, measurements to look at the effect in terms of specific outcomes will be performed (Inger S. Thorsen, personal communication, October 7, 2014).

3.4 Social Cognitive Theory - Bandura

So far, the Gausdal Model has been outlined with reference to Bronfenbrenner's ecological systems theory. Bandura's social cognitive theory (SCT) can help to shed further light on the processes at the microsystem level, as well as the mesosystem level. SCT is based on a modification of social learning theories and expectancy value, and suggests that behavioural, personal and environmental factors function as interacting reciprocal determinants of each other

(Dishman et al., 2005). Hence, this perspective has much in common with Bronfenbrenner's ecological systems theory.

In SCT, the concept self-efficacy (SE) is viewed as the foundation of human motivation and action. SE is viewed as enhancing socio-cognitive functioning and influences how high the goals people set for themselves are, and how strong is their commitment to reaching them. It forms the outcomes people expect from their efforts, and it influences how people see impediments (Bandura, 1997; Bandura, 2004). According to Bandura (1993), "perceived self-efficacy exerts its influence through four major processes" (p. 117), which according to Bandura (1997) are:

enactive mastery experiences that serves as indicators of capability; vicarious experiences that alter efficacy beliefs through transmission of competencies and comparison with the attainments of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction. (p. 79)

Enactive mastery is, according to Bandura (1997) the most influential and is developed through "experience in overcoming obstacles through perseverant effort" (p. 80), hence easy success or failure undermine it. Through the second source, *vicarious experience*, the development of SE beliefs has a social dimension. Children often compare themselves to classmates (Bandura, 1997), and according to Weinberg et al. (as quoted in Bandura, 1997) "surpassing associates or competitors raises efficacy beliefs, whereas being outperformed lowers them" (p. 87). Vicarious experience also involves modelling, and according to Bandura (1997), "seeing or visualizing people similar to oneself perform successfully typically raises efficacy beliefs in observers that they themselves possess the capabilities to master comparable activities" (p. 87). *Verbal persuasion* strengthens people's beliefs that they can achieve what they seek. When struggling with difficulties, it is easier to sustain a sense of efficacy if significant others express their faith in you. In order to positively influence people's SE, the persuasion have to express realistic beliefs about a person's capabilities (Bandura, 1997). In relation to the last source of SE, *physiological and affective states*, according to Bandura (1997), "people often read their physiological activation in stressful or taxing situations as signs of vulnerability to dysfunction"

(p. 106). High arousal can impair a person's performance, and therefore people are more inclined to expect success when this does not affect them (Bandura, 1997). Hence, creating an environment that is supportive and not stressful but nonetheless challenging is important for developing children's SE.

According to Bandura (as cited in Bandura, 1993): "self-efficacy beliefs are the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy information conveyed enactively, vicariously, socially, and physiologically" (p. 145). According to Bandura (1993), a substantial body of research shows that "a strong sense of efficacy enhances personal accomplishment" (p. 144), "reduces stress, and lowers vulnerability to depression" (p. 145), and "contributes significantly to the level and quality of human functioning" (p. 145).

As SE is understood as domain specific in the sense that a person's SE in one field does not necessarily predict his/her SE in a completely different field, this does not mean that it is not transferable (Bandura, 1997). According to Bandura (1997), "efficacy beliefs are structured by experience and reflective thought rather than being simply a disjointed collection of highly specific self-beliefs" (p. 51). Mastery experiences can, according to Bandura (1997) produce some generality in personal efficacy through several processes.

The first process "occurs when different classes of activities are governed by *similar subskills* (Bandura, 1997, p. 51). According to Bandura (1997), different people could have different opinions on what they see as similarities, but most activities have, to varying degrees, novel or familiar aspects. According to Bandura, Adams and Beyer (as quoted in Bandura, 1997), "the enhancement of perceived personal efficacy through the development of coping skills generalizes across different stressors within the same activity domains" (p. 51).

Another of the processes that can generalize SE, is *self-regulatory skills*. These skills can "enable people to improve their performance in a variety of activities" (Bandura, 1997, p. 51). Self-regulatory skills "include generic skills for diagnosing task demands, constructing and evaluating alternative courses of action, setting proximal goals to guide one's efforts, and creating self-incentives to sustain engagement in taxing activities and to manage stress and debilitating intrusive thoughts" (Bandura, 1997, p. 51).

According to Bandura (1997) "powerful mastery experiences that provide striking testimony to one's capacity to effect personal changes can also produce a *transformational restructuring of*

efficacy beliefs that is manifested across diverse realms of functioning” (p. 53). He further says that, “such personal triumphs serve as transforming experiences. What generalizes is the belief that one can mobilize whatever effort it takes to succeed in different undertakings” (p. 53).

Banduras theoretical framework seems to recognise the importance of the social environment on people’s development of cognitive concepts like SE. The concept of SE could help explain how proximal processes in a microsystem like the kindergarten, could influence the development of children’s motor proficiency. This will be further elaborated in the discussion chapter.

3.5 Conclusion

Bronfenbrenner’s ecological systems theory encompasses the child and its surroundings from micro- to macro-system level and provides a framework for understanding how the *social* interaction at all these levels might influence a child’s development. Bandura’s SCT and the concept of SE in particular provides a possible way of understanding the processes going on in the micro- and meso-system and how they influence *psychosocial* development processes within the child. What they seem to have in common, is that both recognize the importance of the *social* environment on children’s development process. A concept that could include the processes that Bronfenbrenner and Bandura describes is the lifelong process of socialization, which Bø (2012) describes like this:

the development process that causes the individual to gradually grow into a community and become part of this. The process takes place in a dynamic interaction with the social and cultural environment in which imitation, identification and internalization are central elements. (p. 23, own translation)

As seen in the introduction, the family is considered to be a child’s primary socialization arena, but the socialization process takes place in all social settings that includes the child, like the kindergarten, which is seen as a secondary socialisation arena, because it is characterized as being confirmatory and supplementary to the primary socialization (Berger & Luckmann, 2011; Bø, 2012). These socialization arenas are seen as circles surrounding the child, like the circles of Bronfenbrenner’s ecological system. The family, kindergarten teachers or other people that socialize the child is referred to as a socialization agent (Bø, 2012).

As will be further elaborated in the next chapter, in grounded theory, the goal is for theory or concepts to emerge out of the data (Bryman, 2012). Hence, it was important not to decide on theoretical perspectives prior to the analysis process. During the analysis process, it became clear that the theoretical perspectives of Bandura and Bronfenbrenner could contribute to explain the emerging theory of the implementation of the Gausdal Model as a socialisation process towards school readiness as well as socio-emotional development.

4. The research process

4.1 Introduction

In this chapter, the research design and method will be presented, followed by descriptions and reflections on the research process.

4.2 Case study design

In this study, the Gausdal Model is the subject of interest. An appropriate study design to explore this is therefore needed. According to Stake (as quoted in Bryman, 2012), “case study research is concerned with the complexity and particular nature of the case in question” (p. 66). The study of an organization is one of the more common uses of the case study. The unique nature of a case study design is, that it is the distinctive features of the case itself that are of interest to the researcher (Bryman, 2012). A case study that focus on one single case, like the Gausdal model, is referred to as single-case designs (Yin, 2014). Yin (2014) presents five rationales for using a single case design, one of them being the *common* case. The objective of a *common* case “is to capture the circumstances and conditions of an everyday situation – again because of the lessons it might provide about the social processes related to some theoretical interest” (p. 52). The aim of this study resembles that of a common case, where the social processes in the implementation of the methods of the Gausdal Model and its possible relation to children’s mastery of their own body and, in turn, school readiness could be better understood when related to established theoretical perspectives.

A question that is the source of discussion in case study research, concerns external validity and generalizability. How can this in-depth examination of the social processes of the Gausdal model provide knowledge that can be valuable beyond this specific case? Different writers on case study research put different emphasis on the quantitative research ideals such as reliability, replicability and validity, depending on their primary point of orientation (qualitative, quantitative) (Bryman, 2012). Often, external validity or generalizability is associated with quantitative research where they are related to how sampling procedures can “maximize the opportunity for generating a representative sample” (Bryman, 2012, p. 48). The primary point of orientation in this study is qualitative, where theory emerges out of data. According to Bryman (2012), case study researchers do not claim that they can describe typical cases from

which it is possible to draw generalized conclusions. That being said, there are ways of showing that the data and analysis from case studies could be valuable beyond the case in question. According to Green (1999),

in qualitative research, issues of validity and generalisability are essentially the same as those in quantitative – establishing the truth of accounts (in that they represent some reality outside the research itself) and adding to theory (in that the findings are applicable to a population or setting wider than that of the study). (p. 421)

This is in line with Bryman (2012) who states that “the crucial question is not whether the findings can be generalized to a wider universe but how well the researcher generates theory out of the findings” (p. 71). This view of generalization is called ‘theoretical generalization’ (Mitchell as cited in Bryman, 2012). Yin (2014) use the term *analytic generalization*, that could be based on either:

(a) corroborating, modifying, rejecting, or otherwise advancing theoretical concepts that you referenced in designing your case study or (b) new concepts that arose upon the completion of your case study. The important point is that, regardless of whether the generalization was derived from the conditions you specified at the outset or uncovered at the conclusion of your case study, the generalization will be at a conceptual level higher than that of the specific case. (p. 41)

Although Yin does not refer specifically to it, analytic generalization or theoretical generalization resembles the theorizing in grounded theory where conceptualisations and theories emerge out of data. A sensitivity to the wider macro context can help make the findings generalizable beyond the specific case or micro-context (Charmaz, 2014). Dopson (2003) also highlights the importance of theory in enhancing the quality of case studies. By giving theory a strong position in the case study, “encouraging the craft of aggregating data across similar projects; and recognizing the importance of social context in the analysis of case study data” (Dopson, 2003, p. 225) a basis for generalization could be established. According to Bryman (2012) the way of looking at the relation between theory and research that, for example, Yin represents, places case study design within the inductive tradition, although looking at the

citation above, there are some elements of deduction too. In other case study research, testing of theory as well as generating theory is common (Bryman, 2012). Another reason why case study design is often associated with a qualitative approach is the common use of participant observation and unstructured interviewing in the collection of data to provide in depth information (Bryman, 2012). In this study, non-participant observations and semi-structured interviews together with a sensitivity towards the context of the Gausdal model, as recommended by Dopson, comprises the data material that the analysis was based upon, and it is hence a qualitative case study, not a case study that mixes a qualitative and a quantitative approach.

4.3 Grounded theory

Qualitative research can rapidly generate large amounts of data, in this case interview transcriptions and observation notes. According to Miles (as quoted in Bryman, 2012), qualitative data is “an ‘attractive nuisance’, because of the attractiveness of its richness but the difficulty of finding analytic paths through that richness” (p. 565). When, in addition, there are few well-established and widely recognized ‘rules’ for the analysis of such data, it can all seem a bit confusing.

A strategy that is often used and probably the most influential general strategy for the analysis of qualitative data is grounded theory (Bryman, 2012; Thornberg, 2012). Although it varies from study to study to what extent the approach is followed, its core components such as coding and memos, are useful to many researchers. The goal of grounded theory is for theory to emerge out of the data, but more often, the generation of concepts better describes the outcome (Bryman, 2012). According to Charmaz (2014, p. 1) “grounded theory methods consists of systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories from the data themselves”. It would be an exaggeration to call this piece of research a grounded theory study, but as in several other studies, some of its core components have been used during the data collection and analysis process. Charmaz’ (2014) emphasis on grounded theory as flexible guidelines and recognition of the method’s potential to complement other approaches to qualitative data analysis (Charmaz, 2014) has provided confidence in the decision to be inspired by aspects of grounded theory rather than strictly follow it from A to Z. The main way in which grounded theory inspired this research was to some extent to inform the

interview process and in the process of analysing the data. Grounded theory also informed reflections on prior knowledge and the place of theory and the literature review.

The role of theory in grounded theory is debated, and various stands has been taken, from Glaser's strict inductive approach to, amongst others, Charmaz's constructivist grounded theory (Thornberg, 2012). According to Charmaz (2014) although the main point is for theory to emerge out of data, still the constructivist stance recognises that researchers bring their prior knowledge and theoretical preconceptions into the research field. This stance is closely related to the view that concepts or theories are developed through the interaction between the researcher and the field with its participants (Thornberg, 2012). These concerns include the place of the literature review. When should the engagement with extant knowledge occur? Dunne (2011) attempt to answer this question by first clarifying that the purist concerns "relate specifically to conducting a literature review in the substantive area of study at an early stage of the research process, while openly acknowledging the important role of extant literature in later stages of a grounded theory study" (p. 115). Further, he says, "grounded theorists adopt a respectful yet critical stance towards extant theories" (Dunne, 2011, p. 115), and quotes Charmaz (as quoted in Dunne, 2011) who says that they require "extent concepts to earn their way into your narrative" (p. 115). According to Dunne (2011), a pragmatic point is the need for a PhD student, or in this case, a master's student, to write a detailed project description with a literature review prior to the data collection and analysis. It is also often argued that grounded theory is well suited for research in areas in which there has been relatively little research and hence a lack of knowledge (Dunne, 2011). But as McGhee, Marland and Atkinson (as quoted in Dunne, 2011) ask: "how can this paucity of knowledge be ascertained unless an initial review of literature is undertaken?" (p. 116).

In this research process, possible theoretical perspectives and a literature review that could help identify a gap in the research was presented in a project description. Still, in the data collection and analysis it was a goal not to impose any theoretical perspectives, but to let the data material speak for itself. After the analysis process, one of the theoretical perspectives in the project description did not seem to be relevant for explaining the findings, while the other two perspectives did. Much of the same process occurred with the literature review. Some of it was still relevant, some not, and there was a need for further reading to help explain the findings.

Ways in which grounded theory could have further informed this research will be discussed in chapter 6.

4.4 Gatekeepers and access to the organisation

According to Bryman (2012) “*politics* (in the non-party-political sense of the working-through of power and contests over its exercise) plays an important role in social research” (p. 150). One of the contexts in which politics becomes important is in the process of gaining access to, for example an organisation. Gatekeepers often mediate this access. The idea to do this research on the Gausdal model came from the public health coordinator in Gausdal municipality¹. According to her, the Gausdal municipal organisation was interested in having a masters thesis written on the project. In this way, getting access to the municipal organisation with several other gatekeepers was a relatively easy process. All these gatekeepers, from the municipal organisation to the kindergarten leaders were very helpful in the process of providing written material, allowing for observations and making contact with informants. They also trusted the research process in a way that no one tried to influence how the investigation took place or what questions were asked, as is often the case (Bryman, 2012). If there was any pressure, it was expressed through an expectation to look at the Gausdal Model critically from an outsiders point of view.

4.5 Recruitment of informants

In order to gather in-depth information on key stakeholders’ perceptions of school readiness and experiences from the implementation of the Gausdal model, a purposive sample consisting of kindergarten teachers and parents was recruited. Possible informants were chosen using the following criteria: kindergarten teachers should have experience with the methods of the Gausdal model, preferably more than one year. Different educational backgrounds, such as kindergarten teachers, child and youth worker and people with no formal education were preferred. The head of schools and kindergartens in Gausdal municipality, provided an anonymous list of all employees in the municipal kindergartens in Gausdal, sixteen people in total. This list provided information about educational background and years of experience with the Gausdal model. In order to provide informants from different kindergartens, it also provided anonymous information about which kindergarten each employee worked in (A, B, C). From this list, six informants were chosen on the basis of providing diversity in educational background and long experience with the Gausdal Model. Thereafter the head of schools and

¹ The public health coordinator is a relative of the researcher.

kindergartens made contact with the selected informants, asking them if they would be interested in participating in this study, and if they agreed to receive an information letter and a consent form. She then returned a list with only names and addresses, so that it could not be linked to the prior anonymous list. An information letter (appendix 3), consent form (appendix 4) and an envelope with return address and stamp was sent to the informants. They were given one week notice to return the consent form. Upon the return of the consent form, the kindergartens were contacted by e-mail or phone and time and date for observation and interviews were agreed upon.

With the parents, the aim was to gather informants from different socio-economic backgrounds. The head of schools and kindergartens made contact with the leaders of the kindergartens, asking if someone was willing to help in the recruitment of parent informants. Leaders of two kindergartens agreed to help. After making contact with them, they each provided an anonymous list of nine parents. The list contained information about year of birth, sex and educational background, for example high school, college, university. From this list six informants were selected, and the information letter and consent form were sent to the kindergartens along with a return envelope. One of the informants resigned before the interview took place. A replacement was selected from the list. This informant also resigned before the interview. At some point a line was drawn, and because of time limits a decision to proceed with five informants only was made. After having received the signed consent forms, contact information to each informant was provided by the kindergarten. The informants were then contacted by phone, and time and date for the interviews were agreed upon. Four of the interviews took place in the kindergartens and one took place at the informants workplace.

During the process it became clear that an interview with the health nurse would give a valuable contribution to the data, since her role was emerging as an important part of the Gausdal model. This decision necessitated changes that needed to be reported to NSD (Norsk Samfunnsvitenskapelig Datatjeneste). First a request by e-mail was sent to the health nurse, followed by a phone call that explained the project in further detail. She agreed to participate on the conditions that she would be allowed to read the parts of the final thesis where the interview with her was referred to. An amendment form was sent to NSD, and it turned out that the project was now notifiable (appendix 1). This meant that identifiable information of the informant had to be kept separate to the interview and that it had to be stored on a computer locked with a code. After the new assessment from NSD was ready, a time and date for the interview was set.

4.6 Observation

The original plan was to do one observation in each of the three kindergartens prior to the interviews. The aim was to provide some background information for the interviews and a better understanding of the application of the methods in the kindergartens. The first two observations were done prior to the interviews. Because of practicalities such as driving distance to Gausdal and time schedule in the kindergarten, the observation in the third kindergarten was made between interview one and two in that kindergarten. After the first two observations, there was some days before the interviews took place. This left time for reflection on the observations which in turn informed the further development of the interview guide. As the third observation took place just hours before the last interview (and after the first interview in that kindergarten), it did not inform the interview as much as the others.

Prior to the observations, an observation schedule based on the research questions and inspired by a former master student was developed (appendix 5). This helped structure what to look for and how to write the observations down. As a non-participant observer, efforts were made to minimise the extent to which the researcher influenced the environment, in this case the kindergarten teachers and children. The experience was that an introduction on who the researcher was and why she was there by the kindergarten teacher was sufficient for the children to shift their focus towards the activities. A smile and a “hi” from the children occurred now and then. When asking the kindergarten teachers in the interviews, it was generally agreed that the researcher’s presence had little impact on the performance of the activity. Still, one can always assume that the presence of an observer will raise some awareness of the performance of the tasks at least by the adults. As this was not a ‘stand-alone’ observation study, and the aim of the observations was to get more insight into how the methods were used in the kindergartens as a basis for the following interviews, any minor altering of the performance was judged to have had little impact on the analysis.

4.7 Semi-structured interviews

Because concepts and theory should emerge out of the data, an open-ended form of interviewing, that left room for the key stakeholders to elaborate their experiences, was necessary. Still, the research questions included some themes that needed to be elaborated. On that basis, semi-structured interviewing was chosen, and interview guides was developed

(appendix 6) (Bryman, 2012). According to Bryman (2012), the questions asked does not necessarily follow the exact order from the interview guide, and if the interviewer want to ask follow-up questions on interesting things said by the interviewees, there is flexibility to do so. Still, he says, with all interviewees, all the questions will be asked and the wording will be more or less the same. This was also the case in the interviews for this research. The interviews were recorded and stored on a password-protected laptop. As recommended by Bryman (2012), there was an awareness about how the presence of a recorder could make people uncomfortable. When asking the informants about this, they all seemed to be comfortable and they did not mind that the interview was recorded.

The interviewer plays an important part in the interview situation, as he or she is the instrument through which the data is collected. This requires his or her sensitivity, integrity and engagement in moral reflection, and to act accordingly (Kvale & Brinkman, 2012). Prior and present work experience in therapeutic conversations turned out to be a strength in the interview situation. Being used to talking with new people and creating a comfortable climate for the conversation (developing rapport) along with the experience of asking follow up questions and being comfortable with silences to give the informant some time to reflect probably contributed to producing rich data. That being said, reaching the point where that former experience became valuable was a process that benefited from the decision to do one pilot interview with the kindergarten teachers and one with the parents. The learning experience from the first pilot interview was that an interview guide with set questions gave to little flexibility, maybe because of a fear of leaving the safe harbour of its structure. The result was an interview that produced short answers from the interviewee and more superficial data than was required for analysis. This showed that although former experience in similar situations was valuable, there was no reason to underestimate the value of the learning experience from doing a pilot interview. An interview that was more conversation-like was the aim, and a new interview guide with a general opening question to give the interviewee the opportunity to talk freely was developed. Bullet points with themes that related to the research questions helped keep the structure. In a learning process, time is an important factor. Conducting the interviews stretched out over several weeks in February-March 2015. Initially this was somewhat frustrating, since it slowed down the progress of the research, but in retrospect, it became valuable.

According to Charmaz (2014), one of the main components of grounded theory is the iterative process that brings researchers back to their informants on one or more occasions. This strategy is called theoretical sampling. This means that when incomplete ideas and tentative categories

emerge after coding the first interviews, the researcher goes back into the empirical world and gather more data on the properties of those tentative categories. Since time-frames in this research only allowed for one interview with each informant, a good sensitivity towards emerging concepts and theories during the interview was needed. According to Charmaz (2014), a way of ensuring this, is to build new questions into the interview conversation as one proceeds, and to let the developing analysis inform new lines of inquiry in later interviews. Hence, the flexibility of the semi-structured interview allowed for asking follow-up questions, while providing a frame that ensured that the themes in the research questions was covered. Although the time-frames limited the process of letting the developing analysis inform new lines of inquiry in later interviews, the time span of several weeks for the interviews allowed for feedback from the supervisor on the pilot interviews and transcription, and hence some reflections that undoubtedly informed later interviews. The limitations of the whole research process is discussed in the final chapter.

4.8 Analyzing the data

As already mentioned, the researcher transcribed the interviews, a process that started after the first interview and went on parallel with the next interviews. The next step, the coding process was inspired by Charmaz' (2014) recommendations. According to her:

coding is the pivotal link between collecting data and developing an emergent theory to explain these data. Grounded theory coding generates the bones for your analysis. Theoretical centrality and integration will assemble these bones into a working skeleton. Thus, coding is more than a beginning; it shapes an analytic frame from which you build the analysis. (p. 113)

According to Charmaz (2014), "initial coding should stick closely to the data" (p. 116). Her advice to the researcher is to look for action in each segment in the data instead of applying pre-existing categories. In this way it is possible to preserve the fluidity of the informants experience and begin the analysis from their perspective. "Line-by-line coding, the initial grounded theory coding with gerunds" (Charmaz, 2014, p. 121), was used on the data material. According to Charmaz (2014), this is "a *heuristic* device to bring the researcher into the data, interact with them, and study each fragment of them" (p. 121). According to Glaser (as quoted in Charmaz,

2014) “line-by-line coding means naming each line of your written data” (p. 124). This process was time-consuming, but allowed for staying close to the data while tentative concepts emerged. An important outcome of that process was the realization that it would be relevant to learn about the health nurses experiences from the implementation of the Gausdal Model, and hence sparked the decision to ask her to participate.

The next step in the coding process was focused coding. According to Charmaz (2014), “these codes appear more frequently among your initial codes or have more significance than other codes” (p. 138). Focused coding takes the analysis further in a way that allows the detail in the data and initial coding to remain and highlight the parts of the emerging analysis that is found to be important (Charmaz, 2014). Focused coding is flexible in the way that “it involves making decisions, but these decisions are tentative, not binding” (Charmaz, 2014, p. 144). As Charmaz (2014) said, some of the codes were worth pursuing and became parts of the analysis, while many others were put aside. An example of the coding process where initial and focused codes from the informants along with related parts of the transcript formed one of the categories, ‘being ready for school’, can be found in appendix 7.

The next step in the analysis process was memo writing, which, according to Charmaz (2014) “is the pivotal intermediate step between data collection and writing drafts of papers” (p. 162). According to Charmaz (2014), this is

a crucial method in grounded theory because it prompts you to analyze your data and codes early in the research process. Writing successive memos throughout the research process keeps you involved in the analysis and helps you to increase the level of abstraction of your ideas. (p. 162)

Several memos were written at different stages of the analysis process. Some of them did not end up in the analysis, while others did. The memos that were not included in the analysis was by no means useless. They helped moving the analysis forward by exploring paths that could be followed further. The memos were only parts of the analysis. Throughout the analysis process, the categories were further developed in relation to the research questions, resulting in the categories ‘being ready for school’ and ‘knowing and seeing the children’, that consists of several of the focused codes. These categories, where ‘knowing and seeing the children’ is the

core-category, and 'being ready for school' is a sub-category, are both related to the main concept, 'mastery of one's own body'. This will be further elaborated in the next chapter.

4.9 Ethical considerations

According to Kvale and Brinkman (2012), ethical considerations are raised in connection to the means of an interview study as well as to the aim of such a study, and has to be taken into consideration throughout the whole process. It is important to be aware that the interaction between the interviewed and the interviewer and the knowledge that emerges in this situation will influence us. To respect our informants and not to harm them may seem self-evident, but what is harm? Psychological harm could be to cause the informants stress and loss of self-esteem, and this was kept in mind during observations and interviews (Bryman, 2012).

In the first contact, in the information letter, and in the approval of consent all the participants were informed that participating in this study was voluntarily and that they could withdraw at any time. They were informed that all information would be treated confidentially and anonymous. The signed approvals of consent was stored in a safe place in the researcher's home and will be shredded after the project is finished. The data that was collected was stored safely in a password protected laptop and will be deleted when the project is finished.

As for the anonymity of the participants, extra concern had to be taken as the project itself was not anonymized, meaning that it is clearly stated that it is about the Gausdal Model. Informants were anonymised by giving each informant a fictional name for the analysis process and their real names was never connected to the data material. For further anonymization, background information such as age or educational background was not connected to the informants during the analysis process. As already mentioned, the anonymity of the health nurse was of extra concern, as she will be identifiable to people involved in the project. Hence, in order to protect her anonymity as far as possible, no background information is given. As promised, statements from the health nurse that are presented in the findings has been double-checked with her.

5. Findings

5.1 Introduction

In this chapter, the findings from the analysis of the interview data generated from the interviews with the kindergarten teachers, parents and the health nurse are presented. First, details about the study participants are outlined. The findings are presented and organised under a succession of descriptive headings, starting with the sub-category, informants' perceptions of school readiness. Next, the core-category, 'knowing and seeing the children' that describes aspects of the implementation of the Gausdal model, is presented. Quotations from the interviews are utilised in order to illustrate the categories and their different dimensions.

5.2 The participants

All of the six kindergarten teacher informants were women. One of the informants was under 30 years old. Two were between 40-50 years old, and two were more than 60 years old. Half of the informants were kindergarten teachers with at least three years of higher education and the other half had no formal education. One of the informants had less than five years of experience as a kindergarten teacher. The rest of the informants had more than 10 years of experience. All informants except one had worked with the Gausdal model since the project was first introduced in their kindergarten.

As for the parents, it turned out that all of the five informants had varying degrees of education after high school. Looking at current employment, two of the informants worked in agriculture, one was studying at masters level, one was working in the private sector and one was working in the municipality. Two of the informants were men, and three were women. The informants were in the age group 30-45 years old. All of the informants had more than one year of experience of having children in a kindergarten that used the methods of the Gausdal model.

5.3 'Mastery of one's own body' – understandings of school readiness

One of the key aims of the Gausdal model is to better prepare children for school. When looking at the understandings of school readiness held by the informants, 'mastery' of one's own body

can be said to be a common denominator. First, how children mastered their own bodies was related to social inclusion and keeping up with the others. Second, it was related to the relation between bodily security and self-confidence. Third, it was related to an emphasis on the importance of bodily tranquillity, which refers to being able to focus and concentrate, as a dimension of school readiness. Lastly, the focus on mastery of one's own body was seen in the relationship between motoric proficiency and learning to read and write. Hence, key stakeholders understanding of school readiness seems to be in line with the earlier presented multidimensional view on school readiness.

5.3.1 Social inclusion - keeping up with others

Key stakeholders highlighted social competence and an inclusive social environment among the children as important in relation to school readiness. According to kindergarten teacher Ingvild, social competence was "*basic values and attitudes like respect for others, recognition and being able to have empathy and be able to relate to others*". She exemplified this by explaining how the children can learn social skills such as patience in the activities by having to stand in line and wait for their turn. Social competence was viewed as important in forming friendships with peers, which contributed to creating an inclusive social environment in the kindergarten. Having experienced good and trusting relations with adults and peers was also seen as important in the children's school readiness. According to mother Anette, physical activity had a social dimension that gave the children opportunities for learning social skills by participating together, helping each other and receiving help from others. She said that these experiences might make them more humble in helping others when someone needed help. She also said that good relations with secure and predictable adults would give the children a solid foundation and better prepare them for entering a school environment that is more intense than the kindergarten.

Kindergarten teachers and parents referred to being secure in one's own body as a dimension of school readiness. According to the health nurse, bodily security was related to motor proficiency and therefore a main component of the Gausdal model. This bodily security was also associated with an inclusive social environment, as there were several reflections about how motor proficiency was related to being able to participate in play and activities with peers, in other words, keeping up with the others. Kindergarten teacher Ingvild talked about how basic motoric skills could be linked to school readiness through social interaction. She said that if children were excluded from activities and play or did not have a friend, due to lack of basic

motoric skills, they would use so much energy and frustration on this that learning and academic development in school would be compromised. Kindergarten teacher Anne shared this view by saying that the motoric development was linked to social interaction and could be important when entering school, *“in order to keep up with the herd”*. Kindergarten teacher Eva also said that having a social inclusive environment and that the children care for each other are important prerequisites for learning.

Another dimension of keeping up with the others was found in the emphasis, especially among the kindergarten teachers, on being able to participate in activities that were often used in school and that were common in the local community, such as skiing. It seemed as though the kindergarten took the responsibility for teaching the children basic skills in skiing in order for them to be able to participate in an activity that was expressed as highly valued in the community and school setting (both in physical activity classes and in the breaks). This can be interpreted in the way that learning activities such as these are part of a conception of school readiness. First, this is due to the social aspect of “keeping up with the others”, not just in the terms of the social environment in school, but also in terms of being part of the wider community in cultural terms. Kindergartens were viewed as being better able to facilitate the learning of culturally valued activities such as skiing because of higher adult ratio and more time to learn skiing as a form of play.

5.3.2 Self-confidence founded in bodily security

Both parents and kindergarten teachers related self-confidence to bodily security and motor proficiency, and highlighted this as important when entering school. Mother Jenny puts it like this: *“I think about it a lot, that if she manages to be confident in herself and in a way feel that she masters much, that she is willing to take a challenge ... and to stand up for her own choices (she will be ready for school)”*. Kindergarten teacher Anne linked self-confidence and a sense of mastery to activity delight and highlighted this as important prior to school entry. She said that it was important that the children should not be afraid of trying new things and that there should be a focus on having fun in activities rather than on achievement. Kindergarten teacher Eva also talked about the importance of the children’s bodily security and mastery in relation to being able to push themselves further and take up new challenges in school by saying: *“I think it will help them to learn better. That they will be determined and not give up right away”*. This self-confidence founded in bodily security seems to be in line with Banduras concept of SE.

5.3.3 Having ‘tranquillity in your own body’

According to kindergarten teacher Ingvild perseverance and patience and having ‘tranquillity in one’s own body’ was important in relation to school readiness. She referred to a seminar where one of the messages was that today’s children belong to a generation that are used to everything happening straight away and adults who immediately provide help and answers. According to her, an important component of the Gausdal model was to learn to find bodily tranquillity and to calm down, which could teach children perseverance and patience. Kindergarten teacher Elisabeth shared this view and exemplified how activities in the Gausdal model such as massage, could help children reduce stress and calm down. Also the parents found it important that the children were able to focus and concentrate. Hans, for example, related a lack of focus and concentration to bad behaviour and the high need for special needs education in Gausdal municipality. Ola said that concentration was important for learning in school and that it was important that the children learnt to listen when the teachers talked and learnt to focus on a given task despite different disruptions in the classroom, although he did not relate learning to focus and concentrate to the motoric activities in the Gausdal model. Mother Anette however, said that she thought it might be easier for children who were very active to sit still, and referred to experiences she had learned from kindergarten teachers in an outdoor kindergarten in another municipality. There had been stated concerns about whether those very physically active children from that kindergarten would be able to sit still in school and it seemed that they were better at it than children from other kindergartens were. She said that they explained it with the active children having better physical condition for sitting still in terms of physical strength. According to them, without that physical strength, sitting still for half an hour or more can be challenging. She therefore related physical activity and motoric proficiency to being able to sit still in the classroom as is expected to a higher degree in school than in the kindergarten. Based on that knowledge, to her it made more sense to have a focus on activity in the kindergartens rather than to practice to sit still.

5.3.4 Motor proficiency in relation to learning to read and write

Although a less prominent theme, key stakeholders related motor proficiency specifically to learning to read and write. They referred to methods of the Gausdal model that trained eye movement as a motoric prerequisite for reading and pencil grip as a prerequisite for writing. Mastering these specific fine motor skills prior to school entry were seen as important, and kindergarten teacher Veronica referred to how they together with the child physiotherapist made

sure that all children mastered this during the last year in kindergarten. She also said that it was easier for the children to keep up in school if the eye movements have been automated and the pencil grip was good. Kindergarten teacher Eva said that they have learned about the connection between motoric skills and language development. She had experienced that when they worked on improving the children's motoric development, exemplified with a child whose mother tongue was not Norwegian, the language development had 'exploded'. Her explanation for that was that the child's self-confidence was enhanced when experiencing mastery in motoric activities, and hence positively affected the language development. Eva also said that she had learned in a course that, for children with dyslexia the practice of eye movements could enhance the reading tempo with several words per minute.

5.4 Knowing and seeing the children – helping the children to master their own bodies

Knowledge about how the methods of the Gausdal model were implemented can tell us something about possible mediating factors in developing children's mastery of their own bodies. The first section presents findings on how the kindergarten teachers provided individual facilitation for children during the activities of the Gausdal model as well as how they monitored their development and saw opportunities to enhance the children's motor proficiency during regular play and activities in the kindergarten. This provide valuable knowledge about the implementation of the Gausdal model at the microsystem level. At the mesosystem-level, the communication between kindergarten teachers, parents, health nurse and other agencies when relevant are presented. These findings about the implementation of the Gausdal Model at the micro- and mesosystem level constitute the core category 'knowing and seeing the children – helping the children to master their own bodies'.

5.4.1 Knowing and seeing the children at the microsystem level

According to Bronfenbrenner (1992) the microsystem is: "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features *and containing other persons with distinctive characteristics of temperament, personality, and systems of belief*" (p. 148). Much of the implementation of the Gausdal Model can be described as processes on the microsystem level. The kindergarten teachers talked about ways to facilitate the development of children's motor proficiency, knowledge about the children's motoric development and ways to monitor this.

The kindergarten teachers seemed to have developed an awareness for motoric development. This came to expression through descriptions of how kindergarten teachers monitored the children's motoric skills in all daily activities as well as scheduled motoric activities. According to Anne, the methods gave the kindergarten teachers specific points in the children's motoric development to pay attention to, and said, *"when you have a lot of experiences to compare with and you work with it over time, it becomes a little easier to detect if there actually is someone who needs a little extra support"*. Veronica shared this view by saying: *"It is about being present; to observe and motivate... about being conscious adults"*. Anne also highlighted the importance of flexibility in using the methods: *"It should not be a rigid program, because the motoric activities/development can be present in everything we do. It is just as much about knowing why we do it and what to look for"*.

Due to this awareness kindergarten teachers looked for occasions to enhance the children's motoric skills in the everyday life of the kindergarten. Children that needed some extra attention got so without that being explicitly stated, illustrated by kindergarten teacher Veronica: *"so then we make sure that they get extra training perhaps, help them so they can master it without making them realize that it is extra motoric training"*. This could be to initiate some play around balance activities and make sure to include those who needed some extra balance training, or to include those who needed some extra training on hopping on one leg in a game that included that. Anne emphasised the importance of quantity and said that most children master the activities as long as they get enough repetitions. According to her, the more spontaneous integration of the activities in the everyday life of the kindergarten was important, especially for those who need extra training. There were examples of children who needed extra individual training in addition to the regular motoric activities and the more spontaneous everyday training, but as it seemed, these were exceptions. When asking why it was important to do extra motoric training without explicitly expressing this to the children, Veronica answered that

"It's not supposed to be forced upon them; it's supposed to be fun. We want to give them a feeling of mastery. So when we see that a child needs some extra help when they're doing an activity, we're just there and help them a little bit".

Kindergarten teacher Anne elaborated this by saying *"they should not feel that we force it upon them. It's supposed to be play-like and pleasurable"*.

It seems as the kindergarten teachers related the feeling of mastery to activities that were play-like and enjoyable, and that they, by giving the children extra training without them knowing it, tried to give them a feeling of mastery and avoid stigmatizing of children. They also talked about how they made the activities more enjoyable for the children by participating themselves, and how they saw themselves as role models for the children in the activities. Kindergarten teacher Eva explained it like this: *“I have to participate and be engaged. I don’t think the children would participate if I wasn’t. We’re supposed to be role models, and I imagine that if we don’t participate, they might think that that’s what grown-ups are like: sitting on a chair watching and commanding”*.

Knowledge of the children and their differing needs recurred in the interviews, and seemed to be related to individual facilitation. As Ingvild puts it: *“you get to know the kids after a while so you know how to react to them”*. Some children needed extra attention in learning different motor skills, while others just needed to sit and watch for a while, and to join at his or her tempo, exemplified by this statement from Anne: *“if one of the children is not so excited about the activity one day, we let them sit and watch for a while, and generally they join after a while anyway”*

Ingvild elaborated that by saying:

“All children are different Maybe they are afraid of not mastering it, or maybe they find the activity a bit scary, but often it is that they’re afraid of not being able to do it. I have good experience in letting them sit and watch for a while, or to take some extra time beforehand to prepare them and explain to them what we’re supposed to do”.

She referred to an occasion when she put up some footprints on the floor to prepare an activity. She explained how she deliberately taped the footprints to the floor a few days before the activity was first scheduled in order to let the children start exploring them and getting familiar with them. Some of the children started skipping and hopping on them straight away, while others observed from a distance. After she and the other kids left the footprints, she observed those children trying them out alone. Eva talked about a boy who participated in many activities except one. They had tried in many different ways to make him become involved and participate, but knew him well enough not to force him. The end of the story was that he sat and watched for almost a year, but today he is participating with all the others. Elisabeth said that although the activities were not supposed to be forced upon them, sometimes the children

need to be pushed a little as well, *“because it is important that they challenge themselves and try out things. You have to break some boundaries in order to make progress”*.

Individual facilitation could also be seen at the group level. Eva talked about how the curriculum or focus areas of the motoric activities could change from year to year, depending on the motoric skills of the children. If they knew that all the children in the group had mastered crawling the previous year, but not cutting straight with scissors, then the focus would be more on cutting than on crawling. However, if a new child started in the kindergarten and they noticed that this child needed some extra training in crawling, they would include that activity so that also this child required those skills. Kindergarten teachers also talked about how the methods and activities in the annual cycle could be customized to fit the different kindergartens. In the outdoor kindergarten, many of the activities took place outdoors, and in another kindergarten that had the opportunity to use the gymnasium at a nearby school, many of the activities took place there. They also talked about the opportunity to participate in the development of the ideas bank associated with the annual cycle, by providing input on activities that worked well and those that did not.

Group size and group dynamics were also related to individual facilitation and sensitivity towards the children’s differing developmental pace. Advanced activities could be divided into easier sections for those children who struggled in order for them to make progress and feel mastery in learning a new activity. Sensitivity towards those children who were a bit shy were related to group size. According to Eva: *“There are children that are seldom heard or noticed in a large group, who dare to stand out in a smaller group. For some, even that is hard, but we have experienced that it helps”*. Small groups also made it easier to see all the children and focus on their development,

It seemed like the kindergarten teachers had developed an awareness about the development of children’s motoric skills that was used to monitor children’s motor development and initiate motoric activities in the everyday life of the kindergarten. In this way, they could help children who struggled without stigmatizing them and promote their feeling of mastery. It seemed important not to force children to participate, and to make the activities fun and enjoyable. Having a good relation with the children and knowing them well seemed to be important for this individual facilitation, and the kindergarten teachers sensitivity seemed to give them confidence to let the children experiment, try out and discover in a structured way. In other words, the experience of mastering in their own tempo. Group size seemed important for

monitoring the children's development as well as creating a safe environment for the children. Individual facilitation was also seen at the group level, with activities changing based on the needs within the child group as well as between the different kindergartens. The processes described in this section are what Bronfenbrenner describe as proximal processes. These processes has the potential to develop children's motoric SE.

5.4.2 Knowing and seeing the children at the mesosystem level

According to Bronfenbrenner (1992), the mesosystem refers to the linkages between two or more settings that contain the developing persons, in this case the children. Hence, it refers to the communication between kindergarten, home and health nurse.

Communication between kindergarten teacher and parents took form of conversations during bringing or picking up the children, and pictures taken during the activities, monthly activity schedules from the kindergarten, and monthly newsletters from the child physiotherapist. As the methods of the Gausdal model are integrated as part of the everyday life of the kindergartens, it was sometimes hard to detect where the methods of the model ended and the regular kindergarten activities began. The everyday communication between kindergarten teachers and parents was not part of the Gausdal model as such, but rather a regular feature of the kindergartens. It is still worth noting that the content of these everyday conversations could be influenced by the focus in the Gausdal Model on motor development. Mother Ingrid had the impression that kindergarten teachers had more knowledge about children's motor development now than earlier, because they gave more specific advice than she had experienced with her older children. The interviewed parents, seemed to be very satisfied with the communication with the kindergarten teachers, and said that they seemed to be well informed about their children's development and daily undertakings, but they did not seem to be particularly interested in all details about the Gausdal model. They seemed to trust the kindergarten teachers to do what was best for their children and saw the activities of the Gausdal model as an integrated part of the everyday life of the kindergarten. The pictures and information letters from the kindergarten included information about the activities in the Gausdal model, and the newsletter from the child physiotherapist was provided as part of the model. The pictures from the different activities in the kindergarten were highly appreciated by the parents, as it initiated conversations with the children about the kindergarten. The parents said that they read most of the information letters. The monthly newsletter from the child physiotherapist suggested different activities that the parents could practice with their children at home. Some parents said

that they did this, but most of them did not. They explained this by saying that their children were already active in their spare time with many different activities. Mother Jenny, on the other hand, said that they often practiced activities at home, and that they as parents were happy about the dialogue they had with the kindergarten teachers about their daughter's motoric development. Father Hans said that they might have practiced activities at home if their children had any motoric challenges.

Another form of communication was between the health nurse, child physiotherapist and kindergarten teachers in the form of guidance of the kindergarten teachers as well as conversations about concerns they might have around a child. In those instances, a consent from the parents that kindergarten teachers and health nurse/child physiotherapist could talk about their child was necessary. The regularity of these conversations were, according to the health nurse, an outcome of performing the 4-year consultation in the kindergarten as a part of the methods of the Gausdal model. She said that earlier, this communication mostly happened if the health nurse had further questions after the 4-year consultation. An example was questions about language development if a child did not speak much during the consultation. Then she would ask the parents' permission to call the kindergarten for further information. According to her, this gave the kindergarten teachers little time to prepare themselves to provide useful information, and maybe, due to practical reasons, she did not get to talk to the kindergarten teacher that best knew the child. Now, she visits the kindergartens on a regular basis to make observations of the children in the kindergarten environment as a part of the 4-year consultation. This gives her the opportunity to observe the children in an environment that they are familiar with as well as seeing them in their everyday social setting. The parents highlighted this as an important quality of the Gausdal model. According to the health nurse, there was, to varying degrees, contact between her and the kindergarten teachers also on other occasions than the scheduled 4-year consultation. Some kindergarten teachers often discussed children and asked for guidance, while others did not. According to kindergarten teacher Eva, the communication with the health nurse had been valuable on several occasions. She said that they often shared their opinions on a child's development, but that having the health nurse's opinion on the matter gave confidence. According to the health nurse, the cooperation and communication with the kindergarten teachers was valuable in providing a solid foundation in cases where a referral to specialists like PPT was necessary.

As part of the Gausdal model, the kindergarten teachers were invited to participate in part of the 4-year consultation. According to the kindergarten teachers, this was done to varying

degrees. This was mostly explained with that the 4-year consultation on some occasions was close to the regular kindergarten teacher-parent conversation and hence superfluous. The kindergarten teachers also expressed concerns about being absent from the child group too often due to these conversations and other administrative duties. At the same time, they found the cooperation with the health nurse and parents valuable, especially in regard of aiming towards the same goals for the children's development and having mutual strategies for meeting children's developmental challenges. It is worth noting that, according to the health nurse, because the private kindergartens have more freedom to choose their methods than the municipal kindergartens, one small, private kindergarten had chosen not to include the 4-year consultation in the kindergarten. According to the health nurse, the result was less communication in general between her and the kindergarten teachers in that kindergarten. The parents had different views on the presence of the health nurse in the kindergarten. Father Hans said that her presence did not influence their degree of communication with her, and said that regardless of her presence in the kindergarten, they knew that they could contact her if necessary. Mother Annette on the other hand, saw the communication with the health nurse and kindergarten teachers at the 4-year consultation as valuable. Mother Ingrid said that, because she already had a good dialogue with the kindergarten teachers, no surprises about her children's development came up during the 4-year consultation. Still she saw the value of this cooperation, because the different perspectives that the health nurse and kindergarten teachers had, could contribute to a broader understanding of any challenge that may occur with the children. According to the health nurse, although the majority of the children participated in the 4-year consultation, sometimes, but not very often, parents did not want their children meet the health nurse during her visits to the kindergartens. On those instances, the parents were offered a regular 4-year consultation at the health centre. A few parents refused this offer, which is not compulsory. Still, all children in the kindergarten were participating in the motor activities.

5.5 Conclusions

It seems as though both parents, health nurse and kindergarten teachers share the multidimensional view on school readiness that was presented in the critical review of the literature. The main emphasis seemed to be on social inclusion and development of self-confidence as a way of developing the children's school readiness. The informants seemed to relate motor proficiency to that development, and hence 'mastery on one's own body' seems to be an important part the informants' perceptions of children's school readiness. Looking at the

implementation of the model, it seems as though the kindergarten teachers, health nurse and, to varying degrees parents, focus was to help children to develop mastery of their own body.

The main concept of the findings can therefore be said to be ‘mastery of one’s own body’ as it seems to be part of the informants’ perceptions of school readiness as well as the focus of the implementation of the methods at the microsystem- as well as the mesosystem level. This concept will be further discussed in the next chapter.

6. Discussion

6.1 Introduction

In this chapter, how (if at all) the Gausdal model influences the children's 'mastery' of their own body, and how (if at all) 'mastery' is related to developing children's school readiness, will be discussed. As already mentioned, Bronfenbrenner's and Bandura's theories could contribute to explain the theory of the implementation of the Gausdal Model as a socialisation process towards school readiness as well as socio-emotional development.

First, how processes from the implementation of the Gausdal model at the micro- meso- and exosystem level influence children's motor proficiency will be discussed. Communication processes between key stakeholders, described by Bronfenbrenner as the mesosystem, and Bandura's concept SE provide possible ways of explaining this, and are hence central in this section. These processes will also be discussed in relation to research referred to in chapter 2. Next, the possible relation between mastery of one's own body and school readiness is explored. The generalizability of SE as well as research on school readiness, and especially the importance of social interaction, are central in this section of the discussion. Lastly, limitations and implications for policy and practice are discussed.

6.2 How does the implementation of the Gausdal model influence children's mastery of their own body?

6.2.1 Kindergarten teachers feelings of ownership, sensemaking and self-efficacy

When introducing a new programme, such as the Gausdal model, the people who implement it, in this case the kindergarten teachers play an important role. Hence, processes at the exo-system level, like educating the kindergarten teachers, are important for developing children's mastery of their own body. It seems that the areas that were highlighted in the kindergarten teachers' descriptions of implementing the Gausdal Model are consistent with their understanding of school readiness. It is interesting to speculate whether this understanding of school readiness existed prior to the implementation and hence influenced it, or if their understanding of school readiness has changed as a result of the implementation and focus areas in the Gausdal Model. Since the programme has been running for several years now, it is likely to be a combination

of both. Informants referred to courses that had taught them the importance of motor proficiency in learning to read and write. They also referred to own experience of the development of young children's language skills, because of enhanced motor proficiency. Thus, the methods were perceived to have influenced the kindergarten teachers' awareness of the relation between motor proficiency and learning to read and write.

As seen in research by Ketelaar et al. (2012), teachers tend to make deliberate choices about their position in relation to an introduced programme based on how well its characteristics and demands fit with their personal beliefs, values and desires regarding education. The kindergarten teachers talked about how the methods were integrated as a part of the everyday life of the kindergarten, and that they had the opportunity to influence the annual cycle and customize the activities to fit their kindergarten. An example was how the outdoor kindergarten had several of the motoric activities outdoors, and that another kindergarten had scheduled motor activities one day a week in the gym at a nearby school. These findings support those of Ketelaar et al. (2012), who found that the "teachers' feeling of ownership, their processes of sense making, and their experiences of agency" (p. 991) played an important role in the extent to which the teachers implemented the new role that was expected of them as part of the programme.

According to Bandura (1993), the teachers' SE in teaching is an important factor in children's cognitive development and functioning. This is likely also the case in the development of children's motoric development and functioning. According to research by Logan et al. (2011) sufficient training for teachers with responsibility for implementing the programme is important for the quality of implementation. The courses about motor development and use of the methods that the kindergarten teachers attended as well as the ongoing guidance by the health nurse and child physiotherapist were seen as developing the kindergarten teachers SE in teaching the methods and monitoring the children's motor development. In addition, the experience of developing and monitoring children's motor proficiency, referred to, as an awareness of motoric development, had the potential to positively influence their SE. On this basis, one can say that the kindergarten teacher's feelings of ownership and agency in the implementation of the Gausdal Model, as well as their SE in teaching the methods were likely to influence the development of children's mastery of their own body.

6.2.2 Communication between key stakeholders

According to Bronfenbrenner (1992), the mesosystem refers to the linkages between two or more settings that contain the developing persons, in this case the children. Hence, it refers to the communication between kindergarten, home and health nurse. The home and kindergarten are typically everyday settings, while the meeting between the health nurse and child happens on special occasions, such as her observation visits in the kindergarten and the 4-year consultation. According to Bronfenbrenner (1979), “such interconnections can be as decisive for development as events taking place within a given setting” (p. 3). Hence, it seems that the communication between kindergarten teachers, parents and health nurse as part of the Gausdal Model also play an important part in children’s motoric development. This is consistent with research by Murata and Tan (2009), who emphasise the importance of interdisciplinary cooperation in teaching motor skills for pre-schoolers. Although their research referred to children with developmental delays, interdisciplinary cooperation is likely to be beneficial for development of motor skills in the Gausdal Model, a programme that is similar to what Marmot (2010) refers to as proportionate universalism.

According to Bø (2012), transference of knowledge is part of the mesosystem. Kindergarten teachers’ discussions with the health nurse about a child’s development, and the knowledge and opinions she provided on the matter are hence typical for the mesosystem. The information provided by the kindergartens in the form of daily conversations, pictures and written information, as well as the child physiotherapist’s newsletter about the Gausdal Model are other examples of this. Having the 4-year consultation in the kindergarten, created an arena where the health nurse, parents and kindergarten teachers could exchange information about the children’s development and perhaps create a common strategy for coping with developmental or other problems. These processes reflect the multidimensional view of school readiness presented in the literature review where Magnusson et al. (2004) refer to studies that underline the importance of parents’ involvement in their children’s schooling as one of several factors that influence children’s achievement. If this is the case, so it might be with their motor development. This was also the message from Springate et al. (as cited in Pugh, 2010), where parents involvement and support were seen as important in successful interventions. It seemed as though the parents were supportive of the kindergartens and saw the Gausdal Model as an integrated part of it, and hence trusted the kindergartens to work on the specific motor activities. This does not mean that parents were not interested in their children’s motoric development, as

they emphasized that their children were participating in several activities, both organised and unorganised in their spare-time.

Bronfenbrenner (1979) refers to the existence and nature of the ties between schools, or in this case, kindergarten, and home, which could be seen as referring to their strengths or weaknesses as well as their quality. As seen in the findings chapter, some kindergarten teachers participated in the conversation related to the 4-year control while some did not, for different reasons, and in a few instances the health nurse did not get to observe the children or meet the parents in the 4-year consultation. This means that the nature of those mesosystems are different from other mesosystems. Still, according to the health nurse and kindergarten teachers, most of the children and parents participate in the 4-year consultation. The parents also talked about good communication with the kindergarten teachers on a daily basis and appreciated that they seemed to be well informed about their children's development and daily undertakings. The nature of these mesosystems can be said to be strong with high quality because of the frequency and content of the communication. This is also the case when the health nurse and kindergarten teachers communicated on a regular basis and the kindergarten teachers participate in the 4-year consultation. On this basis, the different nature of these mesosystems could potentially influence the children's motor development, so that the outcomes could be different between kindergartens.

6.2.3 Proximal processes

The interaction between kindergarten teachers and children during activities in the Gausdal model or other activities, are reflective of what Bronfenbrenner (2001) refers to as proximal processes and Bø (2012), and Berger and Luckmann (2011), refer to as secondary socialisation processes, where the kindergarten teachers act as socialization agents. If the aforementioned mesosystem is strong and of high quality, and the home, kindergarten and health nurse are aiming towards the same outcome for the children, secondary socialization is more likely to be confirmatory and supplementary to the primary socialization that has taken place in the family. According to Bronfenbrenner (2001) the activities the child participates in “generates the ability, motivation, knowledge, and skill to engage in such activities both with others and on one's own” (p. 6). Bandura's (1997) concept SE offers a way to explain how children's sense of mastery of their own body was developed through the proximal processes at the microsystem level. SE is viewed as the foundation of human motivation and action, and is developed through four processes. On this basis, proximal processes that take place as part of the Gausdal Model

have the potential to increase children's mastery of their own bodies. According to both Bronfenbrenner (2001) and Bandura (1997), characteristics of the developing person as well as the surrounding environment are important for human development. This can be said to be in line with research on children's motor development that emphasizes that motor skills are developed in close relation between potential qualities within the child (genes) and the children's social environment (Berg, 2002; Haga & Sigmundsson, 2004; Hannaford, 2005; Moser, 2013a; Moser 2013b; Osnes, Skaug & Kaarby, 2010; Pedersen, 2005). On this basis, it is possible that the development of children's motor skills could be compromised if their individual needs were not met in an appropriate way by the environment.

Good relations with all the children seemed an important dimension of these proximal processes, and an important prerequisite for the kindergarten teachers to meet the children's individual needs as well as creating an emotionally safe learning environment for the children. These findings are supported by Springate et al. (as cited in Pugh, 2010), who found that successful interventions build good relations between kindergarten teachers and children and emphasize developing social skills. Research by Lara-Cinisomo et al. (2009) identified five important factors in teacher-child interaction, which will be further elaborated in the following.

The kindergarten teachers seemed to *be supportive* towards the children's motor development by providing extra help in overcoming obstacles and ensure that they do not give up, hence promoting their feelings of mastery. This reflects what Bandura (1997) refers to as *enactive mastery experiences*, which help develop SE. Being supportive can also be related to what Bandura (1997) refers to as *verbal persuasion* which strengthens people's beliefs that they can achieve what they seek. When struggling with difficulties, it is easier to sustain a sense of efficacy if significant others express their faith in you. Persuasion has to express realistic beliefs about a person's capabilities in order to positively influence their SE. According to the kindergarten teachers, it was important not to force the children to participate in the activities, but an opinion was expressed that sometimes the children needed to be pushed a little and break some borders in order to make progress, which can be seen as a way of being supportive whilst also exerting verbal persuasion. This could also be expressed by preparing the children and explaining the activities beforehand.

A way of establishing *trust* was expressed by the kindergarten teachers through a sensitivity towards those children who were a bit shy by dividing the children into smaller groups during most of the motoric activities, allowing these children to be seen and heard. Trust could also be

established by creating an environment that allows the children to develop and be challenged in a supportive rather than stressful way. Kindergarten teachers tended to relate the feeling of mastery to activities that were play-like and enjoyable. In this way, they aimed to create a supportive environment that was not stressful for the children. Being forced to participate was likely to stress children who sometimes did not want to participate. By giving children extra support without them knowing, kindergarten teachers could avoid stigmatizing children and hence create a supportive environment. According to Bandura (1997) *psychological and affective states* are seen as important for development of SE. Bandura (1997) refers to these as being connected to somatic indicators, and says that “people often read their physiological activation in stressful or taxing situations as signs of vulnerability to dysfunction” (p. 106), which in turn affects their SE. Although Bandura refers to physiological and affective states as connected to somatic indicators like heart frequency or heavy breathing, it is possible that a feeling of trust, and a supportive and not stressful environment would make it less likely that these physical signals are interpreted as vulnerability to dysfunction. According to Moser (2013a), children express good feelings as well as bad feelings through their body language. Hence, it is likely that if children feel good, they are more likely to participate more actively in motor activities and play than if they feel bad, which is in line with Bandura (1997) who says that “mood states also affect people’s judgement of their personal efficacy” (p. 106). Thus, a feeling of trust and a supportive environment could be important, not only to avoid physiological stress reactions, but also for children’s general motivation and participation and development of motoric SE.

Kindergarten teachers expressed sensitivity towards the need for *individual facilitation* in several ways. According to them, some children needed extra attention on learning different motor skills while others just needed to sit and watch for a while, and to join at his or her own tempo. Kindergarten explain that children’s participation often came because they were allowed to watch the activity first, which reflects Bronfenbrenner’s (1979) view about the potential of exposure to activities to inspire children to try out new things. This aligns with the processes that Bandura (1997) refers to as *vicarious experiences*, which gives the development of SE a social dimension. Vicarious experience involves modelling, and according to Bandura (1997), watching other children perform successfully could raise efficacy beliefs by the observers that they can also master the same or comparable activities. The emphasis on individual facilitation supports the aforementioned findings by Springate et al. (as cited in Pugh, 2010), that successful interventions need to tailor the activities to meet the children’s individual needs. Although these

interventions seem to be targeted, they could be relevant because the Gausdal Model focuses on proportionate universalism, which means general activities for everyone and extra measures for those who need it. Group size and group dynamics were also related to individual facilitation and sensitivity towards the children's differing developmental pace, and kindergarten teachers explained how they looked for occasions to enhance the children's motoric skills in the everyday life of the kindergarten. This is consistent with Bronfenbrenner (2001) who said that in order to be effective, the interaction must take place on a regular and frequent basis over time.

The kindergarten teachers saw themselves as *role models* by expressing that for the children, it was important to see the kindergarten teachers participating in order for them to want to participate themselves. As already mentioned, Bandura's (1997) concept of *vicarious experiences* involves modelling, and was earlier seen in relation to the peer group. Although kindergarten teachers modelling probably had a different function than the peers, they talked about how they showed the children better ways of doing the activities if they were struggling, and helped without children noticing it. According to Bandura (as quoted in Bandura, 1997) "modelling that conveys effective coping strategies can boost the self-efficacy of individuals who have undergone countless experiences confirming their personal inefficacy" (p. 87). Hence, also kindergarten teachers modelling could enhance children's SE and be an important feature of the teacher-child relationship.

Mutual respect had the potential to develop through several processes. Kindergarten teachers did not force children to participate, they divided advanced activities into easier sections for those children who struggled, in order for them to make progress and feel mastery in learning a new activity, and they gave them time to 'experiment'/try out/discover in a structured way. The kindergarten teacher's participation in activities could also promote teacher-child relationships and mutual respect, and hence motivate the children as research by Gehris et al. (2014) has suggested.

As seen in this section, elements of the implementation of the Gausdal Model at the mesosystem- as well as the microsystem-level could help develop children's sense of mastery of their own bodies. On this basis, motor proficiency was developed through socialisation processes where support by strong mesosystems and significant others, in this case kindergarten teachers and parents, developed the children's mastery of their own bodies. At the mesosystem-level, quality and quantity of communication and aiming towards the same goals seems to be

important. At the microsystem level, a combination of the four sources of SE and relational qualities between the kindergarten teachers and children developed children's motoric SE and mastery of their own bodies. Could this sense of mastery be related to the development of children's school readiness?

6.3 How (if at all) is mastery of one's own body related to children's development of school readiness?

The first section explores the possibility of transferability of SE in the motor domain to various demands children meet in the school setting. Three of the processes in which this, according to Bandura (1997), could take place will be exemplified. Next, the relation between social inclusion/social competence and mastery of one's own body will be discussed in relation to children's school readiness.

6.3.1 Self-efficacy, a mediating factor between mastery of one's own body and school readiness?

Mastery experiences can, according to Bandura (1997) produce some generality in personal efficacy through different processes. Is it possible that SE beliefs in motor activities could be transferred to the school setting and hence influence children's school readiness?

According to Bandura (1997) this could happen when similar sub-skills govern different classes of activities. SE in fine motor activities like practising the pencil grip or eye-movements, cutting with scissors or drawing different geometric figures could be transferred to other classroom activities. SE in gross motor activities like steeplechase or skiing could be transferred to the physical activity class in school as well as the break time. Hence, some of the motor activities in the Gausdal Model could be interpreted as having similarities with school activities and therefore SE in that domain could be transferred to the school setting.

Kindergarten teachers and parents talked about the importance of self-confidence and bodily security when entering school, and related this to being able to push themselves further and take up new challenges. The process of transferring bodily security to the school setting could be explained with what Bandura (1997) refers to as *self-regulatory skills*. According to Bandura (1997), strategies for coping with one activity can turn out to be valuable in other activities as well. Hence, having the experience of being able to learn in one field could lead to a more general belief that one could learn also in new fields. An important component of the Gausdal

model was to learn to find bodily tranquillity and to calm down, a process that is likely to give rise to children developing perseverance and patience, and hence better prepare them for school. Through activities in the Gausdal Model, such as massage, children can learn to reduce stress and calm down. So when the children learn self-regulatory skills through activities that focus on calming down or overcome challenges and push themselves further in motor activities, this could lead to a more general belief that they can also succeed when facing challenges in different school subjects.

What Bandura (1997) refers to as *powerful mastery experiences*, could help explain a kindergarten teachers experience that the language development ‘exploded’ when a child experienced mastery in motoric activities. According to the kindergarten teacher, the child’s self-confidence was enhanced which positively affected the language development. Thus, a powerful mastery experience seems to strengthen a person’s belief that he or she can mobilize efforts to succeed also in other undertakings (Bandura, 1997). This is also in line with findings from research by Gehris et al. (2014).

These three processes could help explain how mastery of one’s own body could enhance children’s school readiness by transferring SE from the motor domain to the various challenges children meet in the school setting. However, these processes do not say much about social interaction. According to the multidimensional understanding of school readiness presented in the literature review, social competence and inclusion is important for children’s school readiness. This will be further elaborated in the next subsection.

6.3.2 Social competence and inclusion - mediating factors between mastery of one’s own body and school readiness?

Social competence and an inclusive social environment amongst the children were linked to motor proficiency and highlighted as important in relation to school readiness, for both the parents, kindergarten teachers and health nurse. This is consistent with the research by Gehris et al. (2014), who found that, according to teachers, movement builds children’s confidence and social skills, and hence prepares them for school in particular and life in general. According to those teachers, these social skills were learned when children were engaged in unstructured play. In the Gausdal Model the motor activities are integrated in the everyday life of the kindergartens, with kindergarten teachers looking for opportunities to enhance children’s motor proficiency during everyday activities, as well as through scheduled and more structured motor

activities. On that basis, one can say that it makes use of both in a flexible and responsive pattern according to emerging patterns of needs and behaviours.

According to key stakeholders, social inclusion was related to school readiness through bodily security, which according to the health nurse, was related to motor proficiency. This bodily security as a way of mastering one's own body was associated with an inclusive social environment, as there were several reflections about how motor proficiency was related to being able to participate in play and activities with peers, in other words, keeping up with the others. According to Moser (2013b), children's motor skills are important for their social position and attractiveness as playmates, hence, children's motor proficiency is likely to determine the extent to which they are included in the peer group. Findings by Magdalena (2013) emphasize the importance of children's level of socioemotional adjustment to school readiness. This adjustment involve forming relations with new classmates and the affiliation with peers, which is also in line with the findings by Ladd (1990) and Ladd et al. (1996). Hence, mastery of one's own body seems to be related to social inclusion and socioemotional adjustment, which in turn seems to be related to school readiness.

In a meta-study, Aukrust and Rydland (2009) concluded that studies looking at short term and long term effects of kindergartens underline that both structural- and process quality is connected to later learning outcomes. As already mentioned, process quality refers to good interaction between kindergarten teachers and children as well as between the children. Several of the studies they referred to reported overall effects in relation to the quality of the kindergartens, while others reported higher effects on children at risk caused by poverty or lack of parental support. The latter suggests that kindergartens have a protective effect on those children at risk.

The relation between motor proficiency and, social competence and inclusion, and in turn, its impact on children's school readiness pointed out by kindergarten teachers, health nurse and parents seems to be supported by research. Hence, motor proficiency seems to have a *social relational* dimension in its relation to school readiness as well as the *social cognitive* relation represented by Bandura's concept of SE, and the cognitive function presented in former research. The findings from the implementation of the Gausdal Model, show that children's motor proficiency were developed through processes in the exosystem and mesosystem as well as the microsystem, and in the latter as a function of good teacher – child relationships and processes that develop children's motoric SE. On this basis, one can say that developing

children's motor proficiency in the Gausdal Model is a socialization process that meets the multidimensional understanding of school readiness presented in the literature review.

6.4 Theoretical generalizability

According to Bryman (2012), in case study research “the crucial question is not whether the findings can be generalized to a wider universe but how well the researcher generates theory out of the findings» (p. 71), which is consistent with the aim of grounded theory (Charmaz, 2014). Thus, the aim in this study was to build theory based upon the data generated through the interaction with informants. Therefore, the findings were discussed in relation to the theoretical perspectives of Bronfenbrenner and Bandura as well as research in related fields. The theory presented in the discussion has sought to shed light on processes that could be relevant for understanding the Gausdal Model as well as kindergarten in general.

6.5 Limitations

This study involved a purposively drawn sample of kindergarten teachers, parents and one health nurse involved in the sensori-motoric programme the Gausdal Model. The purpose of the study was to get insight into their experiences and reflections on school readiness and the implementation of the Gausdal Model and accurately represent their perspectives. The sample included municipal-, and not private kindergartens. The parent informants seemed to have similar socio-economic backgrounds. Given the constraints of time and resources, it was not feasible to extend the sample to include private kindergartens or parents with different sociodemographic characteristics or experiences. Hence, other views could have been forthcoming. It seems as though, although sharing many similarities, kindergartens to a certain degree have their own culture, which could influence the way the Gausdal Model is implemented and the experiences and views held by kindergarten teachers and parents. It was also sometimes hard to know when the methods of the Gausdal Model ended and other aspects of the everyday life in the kindergarten began, which seemed to be the case with regard to the contact and communication between kindergarten teachers and parents.

Because of time limitations, it was not possible to carry out theoretical sampling - a key aspect of grounded theory research. Theoretical sampling would have allowed for further exploration of the developing categories, and hence provided more in-depth knowledge, for example about

the proximal processes of the implementation of the model. Further research along that line, with in-depth interviews and observations could reveal more knowledge about the processes described in this research. It is worth keeping in mind that, qualitative research is primarily meant to raise hypotheses. To test the suggestions made in this research, different study designs are needed.

As the researcher inevitably plays a role in the interpretation of the data material, according to Charmaz (2014) “researchers must examine ... how their privileges and preconceptions may shape the analysis” (p. 13). In this research, the privilege of affinity with one of the gatekeepers could have made access to the organisation easier. On the basis of affinity, a question about researcher detachment could be raised. Hence, it is important to assure that none of the gatekeepers expressed any expectations towards the outcome of the research, and the research process has not been further discussed with any of them. Charmaz (2014) also says that researchers’ “values shape the very facts that they can identify” (p. 13). Systemic perspectives on human development has been strongly represented in former education and work, and could have informed personal as well as professional values. These values could have influenced the choice of research topic. In the professional role as a researcher it has been important to be detached as far as possible from values and preconceptions. Therefore, as already mentioned in the methodology chapter, the aim was to present the participants’ views as accurately as possible, and further develop them into theoretical concepts that could tell a valid story in a way that could allow for some generalizability or transferability.

The researcher’s main language is Norwegian, and the interviews were conducted in Norwegian. Hence, translation of the interpretations of the data were somewhat challenging. An awareness towards the risk of meanings being lost in translation was needed. This was discussed with the supervisor, whose sensitivity towards these issues helped noticing possible misunderstandings in the translation. At the end of the day, any misinterpretations of the data was the researcher’s responsibility, and hopefully the informants find it that their statements and meanings have been understood adequately.

6.6 Implications for policy and practice

The way the Gausdal Model is implemented, it seems to be in line with the recommendations put forward by the Marmot review as well as Norwegian policy documents. Because the kindergarten is an important socialisation arena that most Norwegian children attend,

interventions have a potentially good reach, and interventions in this age group are in line with the Marmot review (2010) recommendations to “increase the proportion of overall expenditure allocated to the early years” (p. 95). The Gausdal Model is consistent with the Marmot review’s (2010) recommendations about proportionate universalism, and hence it has the potential to mediate effects of children’s socio-economic background and primary socialization on motor proficiency and school readiness. Early intervention programmes, like the Gausdal Model, which aim to promote children’s motor proficiency, seem to have the potential to prepare children for school, and perhaps life in general, because academic achievement seems to be closely related to future work and health status. This may also be for life in general because of the potential of motor proficiency to influence social competence and relations as well as SE, which could be transferred from motor activities to school, and perhaps further in to other domains of a child’s life.

Kindergarten teachers have an important role in the implementation of the model. Knowledge about children’s motor development and a positive attitude towards the methods seems to be important. They have a key role in communication with parents and other agents, such as the health nurse and the child physiotherapist, as well as children. On this basis, it is fair to say that a programme like the Gausdal Model does not exist without the people who put the model into life through their everyday practice. This underlines the need for providing kindergarten teachers with the necessary knowledge when implementing a new programme or focus area in kindergarten. Kindergarten teachers also referred to a sense of ownership of the model because they had the opportunity to influence the activities that were used, and customize the activities to fit their kindergarten. This sense of ownership could be important for the engagement and effort they are willing to use on the programme. In addition to that, because of the possibility of customizing activities to fit different kindergartens, sensori-motoric programmes could be customized to fit different kindergartens in different cultures. It seems as though motor proficiency is developed in the social context of the kindergarten, where strengths and qualities of the mesosystem as well as the quality of the proximal processes within the microsystem, both in which kindergarten teachers have a key role, are important.

When policy makers talk about the importance of knowledge in Norwegian schools, it is important to keep a wide perspective on what the prerequisites for knowledge and learning might be. Hopefully, this research could contribute to extend that perspective beyond the borders of cognitive function.

6.7 Conclusion

The findings from the implementation of the Gausdal Model, show that children's motor proficiency were developed through processes in the exosystem and mesosystem as well as the microsystem. Motor proficiency was developed through a socialisation process where support by strong mesosystems and significant others, in this case kindergarten teachers and parents, could help develop the children's mastery of their own bodies. At the mesosystem-level, quality and quantity of communication and aiming towards the same goals was important. At the microsystem level, a combination of the four sources of SE and relational qualities between the kindergarten teachers and children seems to develop children's motoric SE and mastery of their own bodies.

One of the aims of the Gausdal Model is to better prepare children for school. According to key stakeholders, social competence and inclusion, self-confidence, bodily tranquillity, and fine motor proficiency as a prerequisite for learning to read and write, were all important dimensions of children's school readiness. Their understanding of school readiness was consistent with the multidimensional view on school readiness presented in the literature review. Informants made connections between these skills and motor proficiency; hence, 'mastery of one's own body' seems to be related to several dimensions of children's school readiness. Good kindergarten teacher-children relationships are important in the development of this mastery. Bandura's concept SE could further help understand this process. The ways in which SE beliefs could be transferred from one domain to another, could help explain the connection between mastery of one's own body and school readiness. This mastery could also be connected to school readiness through the social dimension. Through interaction with kindergarten teachers and peers in the motor activities, children's social competence could be further developed. Motor proficiency was important for participation in play and forming friendships, in other words, related to social inclusion. Research shows that both social competence and social inclusion are important dimensions of children's school readiness. On this basis, it seems that the implementation of the Gausdal Model through processes in the micro- as well as the mesosystem have the potential to develop children's multidimensional school readiness as well as socio-emotional competence. This is important also for children's opportunities to succeed in future education and work as well as their future health status.

One dimension of motor proficiency that has not been the focus of this research, is its connection to physical activity. This is also important in a public health perspective, as physical

activity is connected to physical- as well as mental health (Biddle & Mutrie, 2008). Concerns have been raised about trends of obesity and lower levels of physical activity in Norway as well globally (Biddle & Mutrie, 2008; Helsedirektoratet, 2008; Helsedirektoratet; 2012; Mjaavatn & Gundersen, 2005). If programmes that promote motor proficiency, positively influence children's movement enjoyment and physical activity experiences, this could be important in a public health perspective, as it is known that "young people's early experiences are likely to have profound implications for their subsequent patterns of participation in sport an physical activity generally" (Green, Smith & Roberts, 2005, p. 32). Interesting as it is, this will have to be further elaborated in another research project.

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Appendices

Appendix 1 letter from NSD

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



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Vår dato: 02.03.2015

Vår ref: 40643/6/AGL/LR

Deres dato:

Deres ref:

ENDRET HJEMMELSGRUNNLAG

Vi viser til endringsskjema mottatt 20.02.2015 for prosjektet:

40643

The Gausdal Model - A qualitative case study of a senso-motoric program

Personvernombudet har vurdert prosjektendringen og finner at behandlingen av personopplysninger nå er meldepliktig i henhold til personopplysningsloven § 31. Prosjektet er tidligere vurdert som ikke meldepliktig.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i korrespondanse med ombudet samt undernævnte prosjektvurdering - kommentarer.

PROSJEKTVURDERING – KOMMENTARER

Det fremgår av endringsmelding at det skal gjennomføres intervjuer med helsesøster i kommunen og at vedkommende vil være indirekte identifiserbar.

Utvalget informeres skriftlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet.

Personvernombudet legger til grunn at forsker etterfølger Høgskolen i Hedmark sine interne rutiner for datasikkerhet. Dersom personopplysninger skal lagres på privat pc/mobile enheter, bør opplysningene krypteres tilstrekkelig.

Forventet prosjektslutt er 01.12.2015. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette lyd- og videoopptak

Avdelingskontorer / District Offices:

OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no
TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no
TROMSØ: NSD, HSL, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 61 53. solvi.anderssen@uit.no

Ta gjerne kontakt dersom noe er uklart.

Vennlig hilsen




Katrine Utaaker Segadal



Audun Løvlie

Kopi: Kari Larsson Finstad, Svartbakken 2, 2690 SKJÅK

Appendix 2 Annual cycle, rendered with approval from Inger S. Thorsen

| ÅRSHJUL MOTORIKK, GAUSDALSMODELLEN BARNEHAGEÅRET 2013-2014 | | |
|---|----------------------------|------------------------------------|
|  | GROVMOTORIKK/ SANSEAPPARAT | FINMOTORIKK/ SANSEAPPARAT |
| SEPTEMBER | GRUNNLEGGENDE AKTIVITET | KINESTETISK SANS |
| OKTOBER | STABILITET/ BALANSE | TAKTIL SANS |
| NOVEMBER | STABILITET/ BALANSE | HØRSELSSANS |
| DESEMBER | | |
| JANUAR | KOORDINASJON | SYNSSANS/ ØYE-HÅND KOORDINASJON |
| FEBRUAR | KOORDINASJON | SYNSSANS/ ØYE-HÅND KOORDINASJON |
| MARS | VESTIBULÆR SANS | FINMOTORISK AKTIVITET |
| APRIL | HOPPEAKTIVITET | FINMOTORISK AKTIVITET |
| MAI | UTEAKTIVITET | STOR/ LITEN BALL |
| JUNI | UTEAKTIVITET | |

Appendix 3 Information letters

Forespørsel om å delta i forskningsprosjektet “Gausdalsmodellen – en kasusstudie av et sansemotorisk program”

Tusen takk for at du vurderer å delta i denne studien. Dette informasjonsbrevet forklarer hva studien handler om og hva jeg ønsker fra din deltakelse.

Jeg er masterstudent i Folkehelsevitenskap ved Høgskolen i Hedmark, avd. Elverum. Hensikten med denne studien er å samle erfaringer fra barnehageansatte og foreldre rundt kommunikasjons/interaksjonsprosessene i Gausdalsmodellen og å se disse prosessene i sammenheng med barns sosiale ulikhet i det å være skoleforberedt.

For å bli kjent med dine tanker og refleksjoner rundt dette temaet, ønsker jeg å intervju deg. Intervjuet vil bli tatt opp på en digital opptaker, transkribert og så slettet. Intervjuet vil vare i ca. 30-60 min.

Informasjon som kommer frem i intervjuet vil kun bli brukt i forskningsøyemed og presentert i min masteroppgave. Informasjon som fremkommer i intervjuet vil bli brukt på en måte som ikke vil identifisere dine individuelle svar.

Ved prosjektslutt, 01.12. 2015, vil alle innsamlede data bli slettet.

Deltakelse i denne studien er frivillig. Du kan når som helst, uten å oppgi noen grunn, trekke deg fra studien. Hvis du ønsker å delta, vennligst signer det vedlagte samtykkeerklæringsskjemaet og returner det i den vedlagte konvoluttet innen 19.02. 2015. Når jeg har fått samtykkeerklæringsskjemaet vil jeg ta kontakt med deg pr telefon for å avtale tid og sted for intervju.

Nok en gang, tusen takk for at du vurderer å delta i denne studien. Hvis du har spørsmål rundt studien, nå eller når som helst senere, så er du velkommen til å ta kontakt med meg.

Med vennlig hilsen,

Kari Larsson Finstad

Mob.: 95888359 e-mail: klfinstad@hotmail.com

Forespørsel om å delta i forskningsprosjektet “Gausdalsmodellen – en kasusstudie av et sansemotorisk program”. Helsesøster.

Tusen takk for at du vurderer å delta i denne studien. Dette informasjonsbrevet forklarer hva studien handler om og hva jeg ønsker fra din deltakelse.

Jeg er masterstudent i Folkehelsevitenskap ved Høgskolen i Hedmark, avd. Elverum. Hensikten med denne studien er å samle erfaringer fra barnehageansatte og foreldre rundt kommunikasjons/interaksjonsprosessene i Gausdalsmodellen og å se disse prosessene i sammenheng med barns sosiale ulikhet i det å være skoleforberedt.

For å bli kjent med dine tanker og refleksjoner rundt dette temaet, ønsker jeg å intervju deg. Intervjuet vil bli tatt opp på en digital opptaker, transkribert og så slettet. Intervjuet vil vare i ca. 30-60 min.

Informasjon som kommer frem i intervjuet vil kun bli brukt i forskningsøyemed og presentert i min masteroppgave. På grunn av den rollen du har i Gausdalsmodellen vil dine svar kunne være indirekte identifiserbare til tross for anonymisering av navn. Du vil derfor, for å unngå misforståelser, gis mulighet til å lese gjennom de delene av oppgaven hvor du blir sitert/referert til i forkant av publisering.

Ved prosjektslutt, 01.12. 2015, vil alle innsamlede data bli slettet.

Deltakelse i denne studien er frivillig. Du kan når som helst, uten å oppgi noen grunn, trekke deg fra studien. Hvis du ønsker å delta, vennligst signer det vedlagte samtykkeerklæringsskjemaet og returner det i den vedlagte konvolutten innen [dato]. Når jeg har fått samtykkeerklæringsskjemaet vil jeg ta kontakt med deg pr telefon for å avtale tid og sted for intervju.

Nok en gang, tusen takk for at du vurderer å delta i denne studien. Hvis du har spørsmål rundt studien, nå eller når som helst senere, så er du velkommen til å ta kontakt med meg.

Med vennlig hilsen,

Kari Larsson Finstad

Mob.: 95888359 e-mail: klfinstad@hotmail.com

Appendix 4 consent forms

SAMTYKKEERKLÆRING FOR DELTAKELSE I STUDIEN “GAUSDALSMODELLEN – EN KASUSSTUDIE AV ET SANSEMOTORISK PROGRAM”

Jeg bekrefter herved at jeg har mottatt informasjon om studien og at jeg ønsker å delta. Deltakelsen er frivillig, og jeg er informert om at jeg, når som helst og uten å oppgi grunn, kan trekke meg. Jeg har blitt informert om at intervjuet vil bli tatt opp på en digital lydopptaker og at alle data vil bli anonymisert og forsvarlig lagret. Denne studien er meldt inn til NSD (Norsk Samfunnsvitenskapelig Datatjeneste), og de vurderer at prosjektet ikke medfører meldeplikt eller konsesjonsplikt etter personopplysningslovens §§ 31 og 33.

.....

(Navn deltaker, blokkbokstaver)

.....

(Signatur deltaker, dato)

Jeg bekrefter at jeg har gitt informasjon om studien:

.....

Kari Larsson Finstad, masterstudent Folkehelsevitenskap, Høgskolen i Hedmark

SAMTYKKEERKLÆRING FOR DELTAKELSE I STUDIEN “GAUSDALSMODELLEN – EN KASUSSTUDIE AV ET SANSEMOTORISK PROGRAM”. HELSESØSTER.

Jeg bekrefter herved at jeg har mottatt informasjon om studien og at jeg ønsker å delta. Deltakelsen er frivillig, og jeg er informert om at jeg, når som helst og uten å oppgi grunn, kan trekke meg. Jeg har blitt informert om at intervjuet vil bli tatt opp på en digital lydopptaker og at alle data vil bli anonymisert og forsvarlig lagret. Jeg er kjent med at mine opplysninger til tross for anonymisering vil kunne være indirekte identifiserbare. Jeg vil derfor, for å unngå misforståelser, gis muligheten til å lese gjennom de delene av oppgaven hvor jeg blir sitert/referert til før publisering.

.....

(Navn deltaker, blokkbokstaver)

.....

(Signatur deltaker, dato)

Jeg bekrefter at jeg har gitt informasjon om studien:

.....

Kari Larsson Finstad, masterstudent Folkehelsevitenskap, Høgskolen i Hedmark

Appendix 5 observation schedule

Observation schedule, senso-motoric session

Content/aim of session:

Day:

Date:

Time:

Length of session:

Number of staff present:

Number of children present:

Number of girls:

Number of boys:

Age group:

Indoor or outdoor session?

What does the room/area look like:

Equipment in use during the session:

Events:

- **How does the kindergarten teachers act before the session starts?**
- **How is the area/room prepared prior to the session?**
- **Who does this?**
- **Do the children get any instructions prior to the session?**

- **What is the interaction between the children and the kindergarten teachers like?**
- **Amongst the children?**
- **Amongst the kindergarten teachers?**

| | |
|--|--|
| <ul style="list-style-type: none">- What is the atmosphere like during the session? - Are they interested or not inclined to participate? - Are there any children that get more or less attention than others during the session - What characterize the children and attention in those instances? - Do the kindergarten teachers try to teach the children something during the activities? What? - Do the kindergarten teachers help the children with different tasks? What? | |
|--|--|

| | |
|---|--|
| <ul style="list-style-type: none"> - Are the children challenged during the activities? - Do the kindergarten teachers participate in the activities? | |
| <ul style="list-style-type: none"> - How does the children act? (body language, attitude) | |
| <ul style="list-style-type: none"> - Does any situations occur? (Arguments, crying, accident, etc.) - How is this solved by the kindergarten teachers? - Does the children participate in solving this? | |
| | |

| | |
|---|--|
| <p>- How is the session ended? (Who clears up the area/room?, do the children get any messages?)</p> | |
|---|--|

Other notes:

Appendix 6 interview guides

Intervjuguide barnehageansatte

Jeg vil gjerne starte med å tar deg for at du tar deg tid til å delta i denne studien, og at du tar deg tid til å snakke med meg. Jeg er interessert i å få høre om dine erfaringer og refleksjoner rundt noen temaer som er relatert til Gausdalsmodellen. Jeg har satt opp noen temaer som jeg vil spørre deg om, og så kommer jeg sansynligvis til å stille deg noen oppfølgings spørsmål. Du skal vite at her er det ikke noen riktige eller gale svar, jeg vil rett og slett høre hva som er din mening rundt disse temaene.

Bakgrunnsinformasjon

Alder:

Kjønn:

Utdanningsbakgrunn:

Hvor mange års erfaring med metodene i Gausdalsmodellen:

Jeg vil gjerne at du forteller meg litt om Gausdalsmodellen:

- Hvordan bruker dere Gausdalsmodellen i barnehagen? Endring, utvikling over tid? Isåfall hvorfor?
- Metodene
- Sammenligne metodene i Gausdalsmodellen mot sånn man jobbet tidligere. Hvilket bidrag gir Gausdalsmodellen til arbeidet i barnehagen?
- Målsetning – hva tenker du at barna skal ha fått med seg fra barnehagen når de begynner på skolen?
- Forskjell mellom barna? Hvorfor?
- Individuell tilrettelegging? Hvorfor?

- Har dere noen oversikt over de enkelte barn sin utvikling? Isåfall hvordan?
- Hvem er involvert? Hvilke roller har disse?
- Samhandling og kommunikasjon med barn og foreldre
- Foreldreinvolvering, er dette viktig?
- Husk fokus på mikrointerasjonelle prosesser
- Generelle vendinger:
- Kan du fortelle meg litt mer om det?
- Kan du gi meg et eksempel på det?
- Kan du forklare meg hvorfor du sier det?

Intervjuguide foreldre

Jeg vil gjerne starte med å tar deg for at du tar deg tid til å delta i denne studien, og at du tar deg tid til å snakke med meg. Jeg er interessert i å få høre om dine erfaringer og refleksjoner rundt noen temaer som er relatert til Gausdalsmodellen. Jeg har satt opp noen temaer som jeg vil spørre deg om, og så kommer jeg sansynligvis til å stille deg noen oppfølgingsspørsmål. Du skal vite at her er det ikke noen riktige eller gale svar, jeg vil rett og slett høre hva som er din mening rundt disse temaene.

Bakgrunnsinformasjon

Alder:

Kjønn:

Utdanningsbakgrunn:

Hvor mange års erfaring med metodene i Gausdalsmodellen:

Familiestruktur, nærmeste familie:

Jeg vil gjerne at du forteller meg litt om Gausdalsmodellen:

- Hvordan bruker de Gausdalsmodellen i barnehagen?
- Metodene
- Kan du sammenligne metodene i Gausdalsmodellen med evt tidligere erfaring fra barnehage.
- Hvilken erfaring har ditt barn med Gausdalsmodellen?
- Har metodene noen betydning for ditt barns motoriske utvikling tror du? På hvilken måte eventuelt?

- Målsetning – hva tenker du at barna skal ha fått med seg fra barnehagen når de begynner på skolen?
- Individuell tilrettelegging. Har du noen erfaring med dette?
- Har du noen formening om hvordan Gausdalsmodellen fungerer for andre barn og familier?
- Hvem er involvert? Hvilke roller har disse?
- Samhandling og kommunikasjon med barnehageansatte. Hvis du har erfaring med barnehagebarn som ikke har hatt Gausdalsmodellen, er det noen forskjell?
- Kan du fortelle litt om nyhetsbrevet? Trener dere på ting som står i nyhetsbrevet hjemme?
- Kan du fortelle litt om helsesøster sin rolle? Samhandling og kommunikasjon. Har det at helsesøster er i barnehagen noen betydning for det å kunne ta opp ting dere lurer på?
- Foreldreinvolvering, hvor mye kontakt har du med andre foreldre i barnehagen? Er dette viktig for deg? Snakker dere noe om Gausdalsmodellen med andre foreldre?
- Kan du fortelle litt om hvilken rolle fysisk aktivitet spiller i din familie? Har GM (evt andre tiltak i barnehagen) påvirket dette på noen måte?
- Er det noe mer du ønsker å tilføye?
- **Husk fokus på mikroiinterasjonelle prosesser**
- **Generelle vendinger:**
- Kan du fortelle meg litt mer om det?
- Kan du gi meg et eksempel på det?
- Kan du forklare meg hvorfor du sier det?

Intervjuguide helsesøster

Jeg vil gjerne starte med å tar deg for at du tar deg tid til å delta i denne studien, og at du tar deg tid til å snakke med meg. Jeg er interessert i å få høre om dine erfaringer og refleksjoner rundt noen temaer som er relatert til Gausdalmodellen. Jeg har satt opp noen temaer som jeg vil spørre deg om, og så kommer jeg sannsynligvis til å stille deg noen oppfølgingsspørsmål. Du skal vite at her er det ikke noen riktige eller gale svar, jeg vil rett og slett høre hva som er din mening rundt disse temaene.

Bakgrunnsinformasjon

Utdanningsbakgrunn:

Hvor mange års erfaring med metodene i Gausdalsmodellen:

Jeg vil gjerne at du forteller meg litt om Gausdalsmodellen:

- Kan du fortelle meg om hva jobben som helsesøster innebærer?
- Kan du fortelle meg om hvilken rolle du har i Gausdalsmodellen?
- Metodene
- Sammenligne metodene i Gausdalsmodellen mot sånn man jobbet tidligere. Gir Gausdalsmodellen noe bidrag til helsesøsterarbeidet?
- Målsetning – hva tenker du at barna skal ha fått med seg fra barnehagen når de begynner på skolen?
- Forskjell mellom barna? Hvorfor?
- Individuell tilrettelegging? Hvorfor?
- Kan du fortelle litt om hvordan det er å kommunisere med barna og å observere deres utvikling når du er i barnehagen?
- Kan du fortelle litt om hvordan samhandlingen med foreldrene er?

- Kan du fortelle litt om hvordan samhandlingen med de barnehageansatte er?
- Foreldreinvolvering, er dette viktig for å lykkes med metodene?
- **Husk fokus på mikrointeraksjonelle prosesser**
- **Generelle vendinger:**
- Kan du fortelle meg litt mer om det?
- Kan du gi meg et eksempel på det?
- Kan du forklare meg hvorfor du sier det?

Appendix 7 example of coding from one informant related to school readiness

| | | |
|------------------------------|--|--|
| <p>Viktig før skolestart</p> | <p>Målsetninger:</p> <ul style="list-style-type: none"> - Bli kjent med kroppen sin - Massasje, bli kjent med andre - Mestre egen kropp <p>«Hvis jeg presser meg litt til, så kanskje jeg får det til»</p> <p>Viktig for læring å stå på, ikke gi opp</p> | <p>M: For, da kommer vi litt over til, altså målsetningene i Gausdalsmodellen da, altså hva dere tenker at det er viktig at de får med seg fra barnehagen da til skolestart. Kan du si litt om det? Du har jo vært inne på at ikke målet er at alle skal bli like nødvendigvis, at alle ikke skal bli like gode...tenker du....</p> <p>I: ja, det viktigste er i hvert fall at de skal bli kjent med kroppen sin, tenker jeg. At de kjenner på «hvor er det grensen min går før jeg blir sliten?» og «hvor mye kan jeg på en måte presse kroppen min?» Bare dette her med å bli kjent med «hva heter mine kroppsdeler», for det og jobber vi en del med.... Vi har og brukt en del massasje... dette der med å kunne ta på hverandre.... at de og blir kjent med andre på den måten at de skal ta på hverandre liksom. Ja... i hvert fall det at de skal få en følelse av at de mestrer sin egen kropp tenker jeg må være bra. For når de vet at dette her, «hvis jeg presser meg litt til, så kanskje jeg får det til», liksom ...</p> <p>M: Hvorfor er det viktig i skolesammenheng?</p> <p>I: Det tenker jeg er viktig for at de skal lære bedre. Stå på litt, ikke gi opp med en gang. Og den her sosiale biten med å ta på hverandre og at de</p> |
|------------------------------|--|--|

