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Men in communal roles

The influence of gender incongruent role models on gender stereotypes and occupational aspirations of kindergarten children in Northern Norway

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Running Head: HOW DO MALE KINDERGARTEN TEACHERS INFLUENCE CHILDREN'S OCCUPATIONAL ASPIRATIONS?



Men in communal roles:

How does daily exposure to male kindergarten teachers and internalisation of traits influence children's stereotypes and occupational aspirations?

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Author Note/Preface

After a research presentation made by Dr. Sarah Martiny in the autumn of 2016, I began to garner the ideas for a possible thesis that could encompass my interest in developmental psychology, as well as Sarah's expertise in social psychology. Dr. Martiny's research idea sought to look at the barriers that men face in assuming communal roles, and in a broader sense, how gender stereotypical and attitudes could shape societal development in terms of gender equality. My initial thesis idea was to look at the developmental origins of discrimination amongst young people, and after a conversation with Sarah, we were able to combine them into a focused research project.

I subsequently became a part of a 5-man-and-woman-team, setting up and designing our experiment with illustrations, coding, audio recording for pilot measures and rudimentary editing of these materials. We also worked extensively with recruiting kindergartens, setting up the logistics involved with developing testing protocols - as well as naturally being in the kindergartens to collect data. Here, kindergarten children would partake and their responses would be used to investigate both how gender stereotypes develop and manifest themselves, as well as how role models could make these children aspire to certain roles and professions. I worked as the main experimenter in the data collection, performed most of the data analyses and am the sole author of this thesis.

With very good help and guidance from both my main supervisor and my co-supervisor Maria Olsson, I have been able to partake in an exciting and intricate research project (which is ongoing), as well as produce a thesis I am very proud of. My supervisors have also encouraged independence, curiosity in the research field and entrusted in me leadership & responsibility for aspects of the project - and with their help I can safely say I have been guided through the masters programme here at the University of Tromsø in a stellar way. Their doors and e-mail inboxes have always been open for meetings, help and venting of frustrations - and to them I express my eternal and most heartfelt gratitude. I have learnt a great amount of skills, theoretical information and academic practices that I am confident will stand me in good stead in future research and in pursuing academic and other occupational ventures.

George Kwadwo Ofori



Master Student

Sarah Martiny, Professor



Supervisor

Maria Olsson, PhD. student



Co-Supervisor

Abstract

Research in the past has looked extensively at gender segregation in the work force, where men and women are “divided” into bigger domains of work based on traditional gender roles attributed to them (Watt, 2008; Tellhed, Bäckström & Björklund, 2016). These two domains are STEM: science, technology, engineering, and mathematics (Beede et al., 2011) and HEED: health care, elementary education, and domestic functions (Croft et al., 2015). Where many studies have examined the difficulties experienced by women participating in STEM or agentic professions, a much lower amount of research focuses on the barriers men face when entering HEED or communal roles (Croft et al., 2016). In order to further understand how gender disparity in labour develops, we turned to Norwegian kindergartens. This study investigated whether children ($N = 149$; 78 boys, 71 girls; $M_{age} = 66.6$ months, range = 54-83 months) who attended kindergartens with both male and female staff held more gender egalitarian views and aspirations than those who attended kindergartens with female staff only. We also looked at the roles that male kindergarten teachers play as role models. In reporting gender stereotypes of occupations, there were no significant preferences for either communal or agentic occupations as the children mainly reported that both genders could work in most occupations. Moderation analyses showed no significant effect of the gender of the kindergarten teachers on the children's stereotypes, but there was a significant relationship between the boys' internalised traits and willingness to work in communal occupations. These results are discussed in light of the Norwegian Action Plan aiming to increase the number of male kindergarten teachers in Norway.

Keywords: gender stereotypes, professional aspirations, traits, children

Sammendrag

Tidligere forskning har sett mye på kjønnsdeling i arbeidsmarkedet, der menn og kvinner “inndeles” i større domener basert på tradisjonelle kjønnsroller som er attribuert dem (Watt, 2008; Tellhed, Bäckström & Björklund, 2016). Disse to domenene er STEM: naturvitenskap, teknologi, ingeniør og matematikk (Beede et al., 2011) og HEED: helsepleie, grunnutdanning og hjemlige funksjoner (Croft et al., 2015). Der mange studier har utforsket vanskene som kvinner opplever når de deltar i STEM-yrker, har en langt mindre andel forskning fokusert på barrierene menn møter når de vil komme inn i HEED-roller (Croft et al., 2016). For å kunne forstå nærmere hvordan kjønnsulikhet i arbeidsmarkedet utvikler seg, har vi vendt oss mot norske barnehager. Dette studiet utforsker om barn (78 gutter, 71 jenter; $M_{\text{alder}} = 66.6$ måneder, spenn = 54-83 måneder) som går i barnehager med både mannlige og kvinnelige lærere er mer kjønns-egalitære og har flere kjønnsnøytrale aspirasjoner enn de som går i barnehager med kun kvinnelige lærere. Vi så også på rollene som mannlige barnehagelærere spiller som kjønnsatypiske rollemodeller. I rapportene om kjønnsstereotyper av yrker fant vi ingen signifikante preferanser for enten omsorgsyrker eller agentiske (yrker tuftet på ledelse, teknikk og prestasjon); barna rapporterte at begge kjønnene kunne gjøre de fleste jobber. Modererende analyser viste heller ingen signifikante effekter av kjønn på rollemodellen (lærerne) på barnas stereotyper - men det var et signifikant forhold mellom gutters internaliserte trekk/egenskaper og hvor villige de var til å jobbe i omsorgsyrker. Disse resultatene diskuteres i lys av den norske regjeringens Handlingsplan for Grunnutdanning (2008) som hadde som mål å øke antall mannlige barnehagelærere i Norge.

Nøkkelord: kjønnsstereotyper, yrkesaspirasjoner, trekk, barn

How does daily exposure to male kindergarten teachers and internalisation of traits influence children's stereotypes and occupational aspirations?

In this thesis, I aim to evaluate whether daily exposure to gender incongruent role models (in this instance, a male kindergarten teacher) influences career aspirations of pre-school children in Northern Norway. This will be done by comparing gender stereotypes and self-reported career aspirations where children are either exposed to gender incongruent role models (male teachers) or gender congruent role models (female teachers). This initiative was based on the rationale that male kindergarten teachers can serve as gender incongruent role models for the kindergarten children.

The development of gender-related attitudes and stereotypes in children

Gender refers to the state of being male or female, and has both social and biological reference points in its broader definition (Stewart & McDermott, 2004). Primarily (and in a psychological sense), gender is utilised to think of the specified ways in which boys and girls or men and women differ from each other (Stewart & McDermott, 2004). Gender as a social category is one that children seem to be able to deploy from an early age. Studies based on habituation paradigms with 5 and 6-month old infants provide evidence that a basic awareness of gender as a category exists from this early age on (Fagan, 1981). The fact that children are able and willing to distinguish gender in a bid to categorise and simplify their surroundings seems to be a universal process (Whitley, 2016). Thompson (1975) showed consistency with the idea of universality by showing 2 year old children images of men and women in a sorting task, and concluded that 75% of 2-year olds and 90% of 3-year olds were able to correctly categorise genders. Other studies also confirm that children from 2 1/2 to 3 years correctly use gender

labels in referring to themselves and others (Yee & Brown, 1994). The idea that kindergarten children would be reliable self-reporters of gender stereotypes has evident empirical backing, and therefore makes them valuable research participants (MacNaughton, 2000).

In general, gender stereotypes encompass the different beliefs and categorisations attributed to men and women. These stereotypes can transpire in many ways, and may also be learned through social processes (Whitley, 2016). Cultures around the world normally have sets of beliefs concerning men and women and the traits they both possess and should possess, as well as the roles and professions they should occupy (Becker & Sibley, 2016). Hence, what would be considered gender congruent behaviour in one area or geographical region could differ significantly in another region. Researching on the development of gender stereotypes in Scandinavia, a region renowned for gender egalitarian views on society, offers a novel perspective in gender research. The aim of the study does not limit itself to researching gender stereotyping, but also the development of socialisation mechanisms learned by children. Role models have a part to play in teaching children how their gender attitudes develop and can be used to promote equality - and by giving a clue as to which occupations may interest them in the future.

When children get older, studies show that those who have reached preschool-age (3-6 usually) tend to hold gender stereotypical beliefs. A study by Baker, Tisak and Tisak (2016) found that children believed that only boys could use tools and fix cars (practical activities). This works in tandem with a recent study by Bian, Leslie and Cimpian (2017) that found out that 6-year old children endorsed and prevailed in gendered stereotypes about high level intellectual traits (brilliance, mathematical understanding) being mostly attributed to boys. It also revealed

that the girls were purposely avoiding tasks where they were required to be “very, very smart” to participate in and complete. Gender stereotypes that paired high status with masculinity and lower status with femininity were also found in the study of Conway, Mount, and Pizzamiglio (1996).

In using stereotypes to “class” individuals, other research shows that younger boys prefer future careers and professions where they could be active and adventuresome, and professions that are typically male dominated (i.e. fire fighters, police officers, sports). Conversely, girls showed more interest to participate in female dominated, communal professions such as nursing and teaching (Trice & Rush, 1995). Communion and agency represent the two main “ways of being” that divides the genders, with men being more agentic and women being more communal (Carlson, 1971; Croft, 2016). Men are typically characterised as instrumental, dominant and assertive; whereas women are stereotyped as being expressive, warm and compassionate (Deaux & Lewis, 1984; Croft, 2016). These findings were supported by Care, Deans and Brown (2007), revealing noteworthy gender differences in stereotypical gender-related attitudes and furthermore, career aspirations. Here however, whilst boys were more inclined to want to work in male-dominated, agentic occupations; girls seemed more interested in working in professions that were both female-dominated as well as gender neutral (Care, Deans, & Brown, 2007). Helwig's (1998) review seems to also suggest that boys' career aspirations are more gender-fixed than the aspirations of girls.

Gender stereotype development according to social role theory

In line with social role theory, as postulated by Eagly & Steffen (1984), children as well as adults make inferences about what is masculine and feminine, based on how many men and

women fulfil certain roles in a society. A bi-product of this distribution (and observation) is that people expect a person who is masculine or feminine in one gender-stereotypic domain to be masculine (or feminine) on other dimensions. Hence, a masculine individual would be expected to pursue agentic, technical or leadership-bearing jobs, in order to be assumed as *gender congruent*. Gender congruency refers to an activity or a role being performed in line with the expectations one would have of the gender in question. When young workers were asked to define a “traditional” or gender congruent occupation, most answered that it consisted of workers of one sex forming more than 75% of the workforce (US Bureau of Labour Statistics, 2012). People also expect, for example, that a man who has a stereotypically masculine social role also will in addition have stereotypically masculine physical characteristics (height, strength) and personality traits (dominance, strong-willed; Deaux & Lewis, 1984). These representations of masculinity and femininity also teach and influence the child's future aspirations by means of imitation, internalisation of traits and modelling (Croft, 2016). In regards to the present research, this could indicate that depending on the traits that the children attribute from their teachers/ incongruent role models, one would aspire to work in a gender congruent or incongruent profession.

Role models

According to social learning theory (Mischel, 1966; Bandura, 1969), children's understanding of gender roles develops through social influences and through learning processes herewith. More research by Bandura on the topic revealed that children modelled their own behaviour according to what was seen as appropriate by the adults (who shared the same gender as them; Bussey & Bandura, 1984). Studies on role models explain that they influence role

aspirants in three different ways (Morgenroth, Peters & Ryan, 2015). Role models exemplify appropriate behaviour - and here in relevance is gender appropriate behaviour. The role model also demonstrates that fulfilling objectives is possible. Finally, the role model can influence and dictate what the aspiring individual values and would want to achieve - even in situations where the aspirants themselves are unaware that they would like to achieve it. Gauntlett (2002) described a role model as “someone to look up to and base your character values and aspirations on”, whilst Mitchell and Krumboltz (1979) concur that role models can be instrumental in career aspirations for youth. The majority of studies on role models, based on these set of principles, are conducted on subjects in their early adolescence or older (Lockwood, Jordan & Kunda 2002; Mitchell, Jones & Krumboltz, 1979).

Specifically, there is no reason to believe that the same processes would not apply to children in kindergarten age. In fact, studies have shown that young children's cognition is more malleable, especially in cases where gender equality at home is easily observed (Croft, Schmader, Block et al., 2014). Social learning theory further states that children tend to imitate and learn from their closest environments/those around them. Owing to this, it could be inferred that children (especially boys) who are exposed to male kindergarten teachers, may engage in and internalise more communal traits, due to being influenced by same-sex modelling (Slaby & Frey, 1975; Bochner, 1994).

Indeed, studies show that exposure to gender incongruent working professionals resulted in school-aged children reporting less rigid distinctions between the genders (Gombos Tozzo & Golub, 1990). After being exposed to gender incongruent workers, children believed that men could do a “woman's job,” and vice versa. This, however, did not seem to alter their own career

aspirations significantly (Croft et al., 2014). A possible reason for this could be that these studies were often performed in controlled environments. Longitudinal exposure to gender incongruent role models would here provide better insight into the cognitions and decisions of the children who would go on to pursue gender incongruent professions. One might also wonder if the effect that gender incongruent working professionals have on children's gender stereotypes are markedly higher in kindergarten children given their age and social development - or if the effect is only prevalent because they spend a significantly large portion of time in the kindergartens (Bandura, 1969).

Gender policies and occupational distribution in Norway

The Norwegian Action Plan for Kindergartens and Basic Education of 2008-2010 (Norwegian Ministry of Education, 2008) underlined a variety of objectives that the government sought to push forth in the ever-demanding exercise of educating and developing children to be wholesome members of society. Amongst the goals mentioned were "*striving to promote gender equality in educational practices*" and "*bringing children up to encounter a society of gender equality*" (Norwegian Ministry of Education, 2008). As is the case with many macro-contextual ideologies and policies, a potential problem emerges when breaking them down to feasible actions and directives. One way to handle this problem head on however, is by converting targets into numbers and statistics. The goal of the Government therefore was to have 1 of 5 kindergarten teachers in Norway be male as of 2014 (Norwegian Ministry of Education, 2014). Given that the number had stagnated at 11% by 2015 (Norwegian Ministry of Education, 2015), it is clear that empirical backing and a framework to encourage the plan would be advantageous.

This initiative was based on the rationale that male kindergarten teachers can model gender incongruent behaviour, important for the development of a more gender egalitarian society.

Limitations of previous research

Based on the theories presented so far, one would expect that men in kindergartens would influence the gender stereotypes and career aspirations of children in one way or another.

However, existing research in this field does not provide conclusive evidence for this. Previous studies looking at the link between male kindergarten teachers as role models and children's gender stereotyping are limited in their assumptions as they have very rarely utilised a between-group experimental design (Sumison, 2005). This basically indicates that there have been no examples where the results in a group with no male kindergarten teachers have been set up and compared quantitatively to a group with both male and female teachers. The effects of male kindergarten teachers are also barely valid for generalisation, given the fact that studies have focused overly on masculinity in male teachers, and how these teachers are attributed considered masculine or agentic traits. Single case studies only provide insights into how the children responded to one kind of male teacher (Cameron, 2001).

The Action Plan, as mentioned, has a seemingly unclear empirical backing to the claim that more male kindergarten teachers would positively influence children's gender development and stereotypes. Considering the fact that the majority of the studies are based on American or Australian test subjects, it could also be hard to envision results being adaptable in a Northern European (and Norwegian) context. Being able to investigate why a country that ranks third globally on gender equality (GGGI) (World Economic Forum; Global Gender Gap Index, 2017) has such disparity when it comes to having a more gender egalitarian work force would be

instrumental to providing more insight to the literary field. Baker et al. (2016) also propose that the exposure of children to gender incongruent role models could go a long way in promoting more men into communal roles (as there has been a surge of female participation in agentic domains). This study can give further insight to the processes involved in boys when considering communal roles, as well as the stereotypical mechanisms involved when considering the effects of role models.

Overview & Research Questions

Norway's relatively high ranking on the Global Gap Gender Index (GGGI) (World Economic Forum, 2017) would normally diffuse any notion of there being problems in gender equality. However, as in many other countries, in Norway there is a notably unequal distribution of men and women in various professions. One of the concerns of this imbalance in stratification of sexes in the work force is raised when considering leadership and other prominent work positions that grant a worker power over other people and resources - and eventually higher pay or privileges. This development in the workforce effectively counteracts the search for gender equality - especially offering workers equal privileges based on ability (Nauta & Niemczyk, 2014). The underrepresentation of men in health care, elementary education, and the domestic spheres (HEED) (Tellhed, Bäckström, & Björklund, 2016) might make boys think that HEED-roles are only to be performed by women, whilst the underrepresentation of women in STEM-fields (Science, Technology, Engineering and Mathematics) may give rise to similar thoughts in girls (Schuette, Ponton & Charlton, 2012). Subsequently, this might have an effect on their behaviours and eventual professional choices, in a scenario resembling a self-fulfilling prophecy. This means that boys might opt for professions in line with expectations of what "men work as"

whilst girls might do the same with role expectations of female workers (Snyder, Tanke & Berscheid, 1977).

Whilst a lot of research has thoroughly examined the difficulties of women engaging and participating in traditionally agentic or high status professions, an inversely low proportion of studies has focused on the barriers men face when considering female-dominated low status-roles (Croft et al., 2016). To be able to further understand and perhaps even improve on the goals set forth in the Norwegian Government's Action Plan from 2010, one would have to understand why men are underrepresented in communal roles. Whilst students in gender-incongruent studies and consequently jobs (men in HEED-studies, women in STEM-studies) both report less guidance and support in pursuing gender atypical careers, women report that the influence of role models play a bigger part in high status-career paths (Nauta & Niemczyk, 2014). The particular focus of the present research therefore, is to examine the influences of role models on gender-related attitudes and preferences in young children. This also includes a more specific focus on how boys model their aspirations after gender incongruent (male) role models. This would be important to test in kindergarten children as they are in the very initial stages of socialisation, as well as being in line with other research indicating that children as young as kindergarten-aged begin to form valid assessments of their own professional aspirations and social competence (Porfeli, Hurting & Vondracek, 2008; Miller, Martinez, Shumka et al., 2014). The informants for this study are 4 1/2 years old at their youngest, presenting the possibility to utilise measures in a novel way. Studies have shown that 4-year old children indeed are capable of having stereotypes tested (Gold, Reis, & Berger, 1979; Gold & Reis, 1982), and this forms part of the rationale for including them in the testing.

The present study can begin to assume a more concrete form revolving around ideas of gender congruency, role models and professional practices. The purpose is to evaluate the claim that male kindergarten teachers can model gender egalitarian behaviours in children, as mentioned and brought forth by the Action Plan from 2010. Albert Bandura's social learning theory (1969; 1999) focuses on how individuals can learn new attitudes by imitating and observing, also without reinforcement. What this would mean for the study in question is that the children's professional aspirations would be available for *modelling* based on the traits and activities of their role models - the teachers.

This study investigates whether children who attend a kindergarten with both male and female staff hold more gender egalitarian views and aspirations than children who attend a kindergarten with female staff only. In the full study, we also assess the role of parents' occupation and gender related attitudes to control for any additional influences. Research postulates that there is a significant relationship between the career aspirations of boys in particular and the occupations of working male adults in the home (also classed as primary role models; Holland, 1997; Schuette et al., 2012). Our main interests for the study, in summary, are the influence of gender incongruent role models on children's career aspirations, and the influences of male kindergarten teachers on children's (boy's) explicit gender stereotypes. On the background of the literature reviewed, the Norwegian Action Plan and the aforementioned interests for the study, the following hypotheses/research questions aim to explore:

RQ1: *Who do Norwegian children in the age of 4 ½ - 6 years think can work in communal occupations (as kindergarten teacher, stay at home parent or nurse): only women, both women and men, or only men?*

RQ2: *Who do Norwegian children in the age of 4 ½ - 6 years think can work in agentic occupations (as boss or police officer): only women, both women and men, or only men?*

RQ3: *Do more children believe that men can work as kindergarten teachers when they are exposed to gender incongruent role models (male kindergarten teachers) than children who are exposed to gender congruent role models (only female kindergarten teachers)?*

RQ3b: *Do more boys believe that men can work as kindergarten teachers when they are exposed to gender incongruent role models (male kindergarten teachers) than boys who are exposed to gender congruent role models (only female kindergarten teachers)?*

RQ4: *The more communal traits boys report to having themselves, the more they want to work in a communal occupation.*

RQ4b: *For boys exposed to gender incongruent role models, the relationship between communal traits and communal career aspirations should be stronger than for boys exposed to gender congruent role models.*

Method

Ethical approval

The research project was approved by NSD (Norwegian Centre for Research Data; Ref no:54209 / 3 / STM), as well as by the Ethical Committee at the Institute for Psychology, UiT (University of Tromsø).

Recruitment

Pedagogic leaders in the kindergartens were contacted via phone or mail by the main researcher or a research assistant to inform about the study and enquire about initial interest in participating. Following this, an information sheet of the study (see Appendix F) was sent via mail to the pedagogic leader, agreeing on a time to deliver consent forms for the parents and a date to commence testing.

Pilot study

We conducted a pilot study with 20 children in 2 kindergartens (one with gender congruent and the other with gender incongruent role models). The main goal of the pilot study was to assess whether measures and Likert scales (represented by smiley faces) were appropriate for the age group we were working with. For example, we asked children whether they had an understanding of a range of communal and agentic traits and occupations (such as “do you know what comforting is” and “do you know what a nurse does?”). Items which children did not understand were excluded from the main study. In the pilot, we also assessed the total length of the study and whether children were able to maintain their concentration throughout the study. We adjusted the time frame of the main study accordingly.

Main Study

Participants

The main researcher, together with two research assistants, contacted kindergartens in Troms municipality¹ and asked whether they were interested in participation. For the interested kindergartens, children born in 2011 and later were invited to participate ($N = 166$). Data from 13

children were excluded from analyses because they revoked consent before or during testing, as well as failing to complete the experiment. In addition, children that were younger than 53 months were excluded from analyses (4 children). Thus, the remaining sample consisted of 149 children (78 boys, 71 girls; $M_{age} = 66.6$ months, range = 54-83 months, $SD = 5.02$). In order to control for influences other than the presence of role models, parents and teachers were invited to participate in a short survey after data was collected from the children² (see Appendix A and B for full respective questionnaires). This is an ongoing project, so the sample listed above is only a portion of a future full sample of participants. Due to limited time, a couple of the covariances and variables were excluded from this thesis; but these are either listed in footnotes or elaborated on in the "Limitations"-section of this paper. Lastly, we controlled for bilinguality in the participant sample ($n = 19$)³, and included these in the sample.

Design

The study utilised a between subjects-design with 2(Gender: Boy, Girl) x 2(Role Model: Congruent, Incongruent) factors. We compared children who attend kindergartens with only female teaching staff (congruent role models) with children who attend kindergartens with both male (and female) teaching staff (incongruent role models). We also looked at effects within-group (boys) for exploration of **RQ3b**, **RQ4** and **RQ4b**. The dependent variables are gender stereotypes of professions, children's career aspirations; as well as the children's gender stereotypes of traits.

Procedure

Previous research conducted on young children suggested that boys often were unwilling to partake in activities that were more verbal or drawing-based, compared to girls. For this reason and following recommendations in *Handbook for Research with Children* (Melton et al., 2014), we opted to make the experiment more engaging for boys by making it digitally based. Participants were given a tablet each (with an experiment designed in the program OpenSesame). Verbal consent and demographics (name, code assignment, age, handedness and language) were collected from the children. The experimenter (a trained university student) asked questions, and children were required to indicate their answers using the tablet. During the study, a second person was present (i.e., the “secretary”) who took notes of general observations (such as children’s reactions to the questions or understanding of the questions). The secretary also helped to ensure that the children did not copy responses of other participants, and would also assist children who seemed unsure what to do. The experimenter and secretary-roles were always filled by pairs of one male and one female student. At the end of the experiment, the children were given an age-appropriate debrief and a sticker was offered to them as a thank you for their participation.

Measures

Assessing Likert scales. We validated the scoring scales by asking the children how much they liked ice cream, and then what they felt about having to go to bed early. These two responses were expected to elicit polarising responses, and suggested the scoring options had discriminant validity⁴.

Occupational aspirations. We assessed children's aspiration to pursue a communal (nurse, staying-at-home-parent & kindergarten teacher) and agentic (police officer & boss) occupation (see appendix C for images used to depict the occupations). Following procedures by Levy et al. (2000), the experimenter showed the children an image of an occupation and briefly described the profession ("A nurse is someone who helps and takes care of the sick and injured"). Subsequently, the experimenter asked the children "How much would you like to do this job?" The children gave their responses on the tablets by clicking on a smiley in a 3-point Likert scale corresponding to not at all, a little or very much (appendix D depicts the images used for the 3-point Likert scale).

Stereotypes and perceptions of occupations. In another adaption from Levy et al. (2000), the children were presented with the same images of occupations as in the measure mentioned above. However, in this sequence, they were asked to indicate whether the occupations were capable of being performed by only men, only women or by both men and women. Questions would be formulated such as: "Who do you think can be a nurse/...?" Responses here were also given by clicking on the corresponding Likert categoric scale: women, men or women and men (Appendix E shows the categoric scale scoring options).

Self stereotyping traits (short stories). Short stories were read to the children where a neutral "acquaintance" of the experimenter is attributed certain traits (4 communal and 2 agentic) - in a measure adapted from the study of Bian et al. (2017). The children are asked to which extent they believe these traits/behaviours ("I know of a child who likes to compete"/"I know of a child who likes to give hugs to other children - does this sound like you?") apply to themselves.

They score their internalisation of the trait via 3 point Likert smiley scale, ranging from "not at all", "a little" or "very much" ($\alpha = .71$). See Appendix F for full protocol of short stories.

Role model qualities. The children are asked questions about their kindergarten teachers. The goal was to investigate the children's perceptions of traits and qualities in these role models (the teachers), and evaluate whether these are traits they aspire to have/develop (Morgenroth, Ryan & Peters, 2015)⁵.

Implicit measures: Auditory Stroop. The project also used the Auditory Stroop measure adapted from Most et. al (2007) to measure associations between certain gender stereotyped words.⁶ As this measure was not used in the analyses of this thesis, it is explained in greater detail in the footnotes.

Results

First, **RQ1** and **RQ2** addressed the question of whom children think would be able to work in communal and agentic occupations. In order to answer these research questions, chi-square analyses were used. Secondly, a multinomial logistic regression analysis was used to assess if the occupational stereotypes of the children depend on which kindergarten (gender congruent vs. gender incongruent) they attended (**RQ3a & b**). Lastly, linear regression analysis was used to explore the relationship between communal traits (self-stereotyping traits) and communal occupational aspirations; and whether this relationship was influenced by the kind of kindergarten the children attended (gender congruent/gender incongruent) (**RQ4a & b**). The distribution of participating children's gender across the two kinds of kindergartens can be seen in Table 1:

*Table 1. Gender of the child * gender of role model cross tabulation*

		Gender of	Gender of	Total
		the role model	the role model	
Count		Male	Female	
Gender of the child	Boy	35	43	78
	Girl	44	27	71
Total		79	70	149

Stereotypes about communal and agentic occupations. To answer **RQ1** focusing on the question of whom children believe are able able to work in communal occupations, a Chi-square analysis was used to test for equal distribution of all three levels of outcome of the variable (i.e., if the children believed the communal occupations (with kindergarten teacher in focus) could be performed by only women, both women and men, or only men). The Chi Square-test was significant (chi-square = 108.5, $df = 2$, $p < .001$; see Table 2), meaning there was no equal distribution among the three categories as most children chose that the communal occupations (kindergarten teacher) could be done by both men and women (72.9%; 11.6% and 13.5% respectively). An additional Chi Square-test was used to investigate if the distribution of “women only” and “men only” differ in the stereotyping of kindergarten teacher. To do so, the both-category was removed. Results of this Chi Square test show no significant difference between the distribution of only men and only women (chi-square = .105, $df = 1$, $p > .75$).

Table 2: Chi-square test statistics for all occupations

	Nurse	Stay At Home Parent	Kindergarten teacher	Boss	Police Officer
Chi-Square	131.7	81.4	108.5	65.8	94.8
df	2	2	2	2	2
Asymp. Sig.	0,000	0,000	0,000	0,000	0,000

Note. 0 cells have expected frequencies less than 5. Significance indicates no equal distribution of responses.

In testing **RQ2**, the same procedure was used, this time with the agentic occupations police officer and boss. Here, we get significant effects for the preference of men in both occupations ($p < .001$).

Effects of role models on stereotypes about kindergarten teachers. In **RQ3a**, we investigated the research question whether more children believe that men can work as kindergarten teacher when they attend kindergartens with male staff than children who attend kindergartens with female staff only. In order to answer this question, we ran a nominal logistic regression using the condition of the kindergarten (gender congruent/gender incongruent) as a predictor and gender stereotypes of the occupation "kindergarten teacher" as an outcome. This occupation was chosen as it is the one modelled unto the children, in line with social learning theory (Bussey & Bandura, 1984). Results from the model fitting information show an insignificant p-value (chi-square = .873, df = 2, $p > .65$). This indicates that there is no effect of

the gender of the kindergarten teacher on the children's belief of whether men can work as kindergarten teachers.

RQ3b was analysed with the same method as **RQ3**, with the only difference being a selection of the data set to include solely the response of the boys. The nominal logistic regression resulted in a non-significant model fitting (chi-square = .056, $df = 2$, $p > .97$).

Table 3: Model Fitting Information for Regressions

Condition	Chi-Square	df	Sig.
All children	0,873	2	.65
Boys only	0,056	2	.97

Self stereotyping and Occupational aspirations. The self-stereotyping measure looked at both communal and agentic traits in **RQ4a**. We built a sub-scale to measure “communal traits”, which consisted of four questions. The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.71. A mean of these items was calculated and used as a scale. A bivariate correlation showed positive correlations for all aspirations except nurse ($p > 0.37$). The correlations can be seen in Table 4.

Table 4. Correlation coefficients of occupational aspirations

	β	t	Sig.
(Constant)		13.59	0,000
Nurse asp.	-0,076	-0,900	0,370
Stay At Home with baby asp.	0,182	2,053	,042*
Kindergarten teacher asp.	0,171	1,933	,045*

Note. Dependent Variable: Z Score (mean) of communal aspirations variable.

*Significant at 0.05 level.

Moderational analysis

In **RQ4b** we used a linear regression analysis to test whether the relationship between communal traits and communal occupational aspirations for boys was moderated by kindergarten (female only vs. male and female). All continuous predictors were z-standardized. Subsequently, an interaction term was built (z-mean of communal traits x gender of role models in kindergarten). The girls were excluded from the sample and two regression analyses were run. In the first, gender congruent/incongruent kindergartens, communal traits and the interaction terms were added in as predictors in the model (see theoretical model Figure 1 in Appendix J); and stay at home parent aspirations served as the outcome. The interaction term was not significant for this relationship ($\beta = -.043, p > .91$). Nurse aspirations were excluded in these tests due to insignificance in the **RQ4a**-test. The standardised mean for the computed variable (communal aspirations) ($\beta = .377, p > .30$) and gender congruent/incongruent kindergartens ($\beta = .115, p > .31$) were not significant either.

In the second regression analysis, the same procedure was applied, this time with kindergarten teacher as the outcome. The interaction term ($\beta = -.004, p > .99$) was not significant here either. The same applied for the standardised mean for the computed variable (communal aspirations) ($\beta = .311, p > .40$) and gender congruent/incongruent kindergartens ($\beta = .080, p > .49$).

Table 5. Correlation coefficients output of regression

	Kindergarten teacher aspiration	Kindergarten teacher aspiration	Stay at home parent aspiration	Stay at home parent aspiration
	β	Sig.	β	Sig.
(Constant)		0,000		
Interaction term	-0,04	0,99	-0,043	0,91
Z score (mean) of comm_asp	0,311	0,40	0,377	0,30
Gender of role model	0,080	0,49	0,115	0,31

Note. Interaction term = z-mean of communal traits x gender of role models in kindergarten.

Discussion

This study sought to examine ideals from the Norwegian Action Plan from 2010 for Basic Education, as well as further shed light on what the research field already has concluded concerning children's development of gender stereotypes. The Action Plan claims that a major portion of the importance of male kindergarten teachers in Norwegian kindergartens is the

modelling of gender egalitarian beliefs and practices unto the children. A significant aspect for the fruition of this ideal would be that male kindergarten teachers also engage in the communal activities and roles that the women would have in these working places, and that their daily exposure/contact with the children would be sufficient for modelling to take place. With these criteria in place, one can begin to dissect the study's findings in a slightly more microscopic fashion.

The first and second research questions looked at the distribution of children's answers in response to attributing communal occupations to mostly women, and agentic occupations to mostly men. This idea of gender congruency falls in line with studies by Levy et al. (2000), Croft (2016) and in an implicit study by Wilbourne & Kee (2010). According to these ideas, one would expect the children to answer that the tested occupations "nurse", "stay at home parent" and "kindergarten teacher" would be stereotyped to women, and the occupations "boss" and "police officer" would be mostly attributed to men. However, as the results from RQ1 show, this was not the case. For the vast majority of the replies in communal occupational stereotypes, the children responded that the jobs could be done by both men and women, compared to only men or only women (72.9%; 11.6% and 13.5% respectively). A similar pattern was found in the agentic occupations, where the majority answered that both men and women could perform these professions. There was however a significant difference between the responses of how many men and how many women who were able to work in these (boss and police officer). The difference in "boss" especially was notably greater, and this goes on to show that whilst the children believe in a greater sense that communal occupations could be performed by both sexes, their beliefs of the performers of agentic occupations fall more in line with gender congruency.

In posing the question RQ3, we directly tapped into the possible effects that role models (gender congruent and incongruent) may have on the occupational stereotypes that the children hold. With a foothold in earlier research and the social learning theory (Bussey & Bandura, 1984) as backdrop, one could predict that male kindergarten teachers as role models would in some way influence the children's explicit gender stereotypes. The results from the nominal logistic regression analysis, however, contradicted this prediction as it showed no significance - translating to no notable effect of the exposure to male kindergarten teachers. This concurs with earlier studies (Gold & Reis, 1982; Cameron, 2001; Sumison, 2005) that found little to no significant effects as well. In the majority of those studies, perceived little effect has been accredited to strong gender normative views of the men in their roles as kindergarten teachers (Gold & Reis, 1979; Sumison, 2005). A Norwegian case study reported a general uneven balance of administrative and emotional labour in the kindergarten as well (Børve, 2017). This particular study concluded that men and women negotiate about different things in their work lives in the kindergarten. Whilst the women negotiated for more gender egalitarian work practices and routines, the men negotiated more on a basis of personal interest in work tasks (Børve, 2017). Thus, it is highly likely that an alternative explanation for the limited effects of male kindergarten on the children's occupational stereotypes could centre around the "roles" the men choose in their professional daily life. For a sufficient modelling of communal traits to apply to the men as well, they would have to show these behaviours (on a daily basis) sufficiently for the children to observe and therefore form a "new" gender schema - one where men also can work normally kindergarten teachers. In situations where the men craft their work experiences based on interests (and possible their own gender stereotypes) however, modelling communal traits

might be so scarce in frequency and intensity - and therefore have minimal effect on the children.

In line with RQ4, we found that the link between the self-reported communal traits the children possess and their subsequent aspiration to work in communal professions was significant. This, however, applied to staying at home with a baby and working as a kindergarten teacher - but not as a nurse. In the regression analysis, assumptions of equal (or relatively equal) sample sizes were met. The interesting finding concerns how the internalised communal traits of boys seem to correlate with their aspirations to some communal occupations. In testing for the effects of the role models, we once again found an insignificant influence; contrary to the research statement **RQ4b**. Bandura (1969) suggested that motivation was an important factor in the reproduction of modelled behaviour. Hence, male kindergarten teachers motivated for emotional labour and communal work were of a greater influence to the children than those assuming more agentic or administrative roles.

The results in general seem to indicate that between the two factors, role models vs. communal traits, the traits have a greater impact on the aspirations of the children themselves to participate in communal occupations. Another general implication of the study is that Norwegian children are generally quite gender egalitarian, irrespective of how much exposure they have to gender congruent or incongruent role models. This could indicate that as a society, gender egalitarian practices, views and policies seem to be having an effect on Norwegian children's stereotypes. Parental leave policies for both men and women (Child- And Equality Department, 2018), increased focus on recruiting girls into STEM-education ("Hva er Jenteprosjektet Ada?", Fossen, 2017) and the Action Plan for Basic Education (Norwegian Ministry of Education, 2008) all seem to be instrumental in shaping the children's gender schema. And lastly, in applying

social role theory (Eagly & Steffen, 1984), the relatively gender traditional distribution of men and women in occupational roles in the Norwegian society seems to have a stronger modelling effect with agentic occupations, than with the communal ones.

There are more and more policies in the Norwegian political sphere today that continue to advocate for the increase of male kindergarten teachers and role models. In a news article dated 11th April 2018, the Norwegian Labour Party presented a desire to recruit more men into the kindergarten as employees; where quotas for male kindergarten students amongst other ideas were mentioned (“Ap-toppar vil kvotere menn inn i barnehagane”, Bjørge & Lura, 2018). A male kindergarten teaching-student, Øyvind Grime, tells of his experience as a male kindergarten teacher in a Norwegian kindergarten:

- “I think it is important to get more men into the kindergartens. There were few men where I last worked. You notice then that there are many kids that lack the male role model” (“Ap-toppar vil kvotere menn inn i barnehagane”, Bjørge & Lura, 2018).

Based on these thoughts, it would seem that there are male kindergarten teachers who themselves are aware of a potential need for male role models for the children. This seems especially pronounced for boys, and falls in line with the literature on the importance of same-sex modelling (Slaby & Frey, 1975; Bochner, 1994). The conclusive evidence from these two studies show that same-sex models have a greater influence on both children's gender identity and youthful observational learning. Most importantly, the modelling encourages children and adolescents to attain a sense of gender-appropriate and social normative behaviour. Another aspect mentioned earlier in the thesis was the perceived barriers that men faced in entering communal/HEED-roles. This quote by Labour Party City Council-leader Raymond Johansen

from news article mentioned above sheds some light on how men could experience the kindergarten as a work place:

- "If you are the only man, it can be a tough experience. If there are suddenly 3 colleagues, then many more will come. The goal must be that in a short space of time, we get 20 percent men in the kindergartens." ("Ap-toppar vil kvotere menn inn i barnehagane", Bjørge & Lura, 2018).

Here, the issue brought up concerning the experience of men in kindergartens centres around building a working environment where the male workers feel a consistent gender identity. By having more men working, the idea seems to be that further future recruitment of men (and thus magnified role modelling unto the children) would be easier to make happen. Another governmental study by Statistics Norway (2017) gives further support to the argumentation that more male kindergarten teachers pose an advantage for child academic development. In a longitudinal study following children in public schools in Oslo, the results concluded that "child care enrolment in a child care centre with a higher share of male staff, performed better on tests in language and mathematics in the early years of school" (Drange & Rønning, 2017).

Limitations and further research ideas

With these studies, policies and ideas all seeming to highlight the importance of male kindergarten teachers as role models for children (and especially boys), why did the present study - and indeed other previous studies looking at the effects of male role models on children's gender attitudes - show so little effect of this factor? The reasons could be many and varied. First and foremost, it is salient to mention that the sample used for the purpose of this thesis is only a selection of what will be a fuller sample in the future. The number of children in the project

overall would be expected to double in amount as further recruiting and testing is currently underway. In terms of the project design, two question protocols were designed in the semi-structured interviews of the children to obtain data. The protocols had a counterbalanced order of gender presentation, meaning that in one protocol, the male scoring options were presented first, whilst in the other, the female Likert options were the initial options. This was arranged to control for implicit processes such as sequential priming (Hahn & Gawronski, 2015), as well as itself being an important practice in gender research.

Due to time and reality constraints however, the counterbalancing was not the only factor that was not included in the analysis. There was so much information gathered from the participants that cutting them down to a portion relevant for this thesis was the most feasible way to use them. The gender attitudes of parents and teachers were also excluded from this thesis' analysis. In a future study amalgamating this study with newer ideas, full confidence is held that the insight from the parental and teacher-based questionnaires would potentially be invaluable for this project. As shown in Appendix A and B, parents and teachers are asked a variety of questions about the home and work environments of themselves and the children - including gender essentialist measures which undoubtedly could shed more light on the children's observations of parental and teacher role modelling (on a much more elaborate level than solely the self-reporting from the children in data collection). Another factor excluded from the analysis of the present study (as mentioned in the footnotes) is the categorisation of kindergartens recruited from Tromsø Municipality and neighbouring districts. An assumption is that gender stereotypes are more strongly held in a traditional sense in the district areas. For the purpose of this study, that would entail more gender "rigid" beliefs in both the children and the kindergarten

staff, which could have had an effect on this project's data set. This categorisation could also apply to differences between communal and university kindergartens, as well as in the private ones. In the University kindergartens, a majority of the children reported having parents working at the University Hospital (UNN) or at the University (University Of Tromsø) itself as lecturers, professors or students. These would be controlled for in the future continuation of this project.

Finally, in a developmental sense, there would always be the chance the participants in a few cases misunderstand the line of questioning, or by using the digital tablets, make an error in answering. Participants that had evident trouble understanding questions or responses were noted and in due time excluded from the sample - but it would be virtually impossible to ascertain that all misunderstandings or errors would be eliminated in the pre-analysis phase. This could in turn explain the insignificance of the correlation between having communal traits and aspiring to be a nurse. In an unexpected finding, more children reported that "nurse" was an occupation more commonly/suitable performed by men - which could indicate a possible confusion between this occupation and "doctor", which is a slightly more agentic occupation in Norway (Statistics Norway, 2017). As there were two pairs of experimenter and secretary groups, it is also a possible limitation that there were slight differences in the explanations of measures to the participants, even if standardised protocols were followed at all times. Children's fatigue, limited attention span or likeliness to imitate adults and each other (especially the children noted as dominant children) are also factors that need to be considered is part of the data material for the project.

Future research on the subject of the effect of male kindergarten teachers on children, nevertheless, has many possibilities. One would be to further incorporate the “Role Model Qualities”-scale (Morgenroth, Ryan & Peters, 2015) into the project analysis. In this measure, children are asked to assess their similarities and stereotypes of a certain role model (specific teacher). Adopting this measure could allow researchers to further investigate how much a child's perceived “likeness” to a role model would relate to the forming of gender beliefs. This study adapted the measure to focus more on the similarity between the children and their role models (self-reported), but an idea would be to include the measure's full scaling items, where the children's degree of “liking” the role model also is taken into account. This corresponds with a study by Lockwood (2006) that cites the importance of how much the children like the role model when determining how much of an influence said role model would have on a child's gender beliefs.

Research to be conducted in the future also has many possibilities methodologically. To study the long-term effects of such modelling of gender beliefs in pre-school children, there is a need for more longitudinal projects. This is a concern brought up in a review study Tsigra (2010), where the wish for more long-term effect studies and case studies is outlined as being important in mapping the developmental paths of concepts such as gender stereotype development. It could be important here to continue the assumption that 4 to 5-year olds indeed are valid respondents and should be treated equally as such (MacNaughton, 2000). The same applies to more qualitative interviews where the male kindergarten teachers are understood in light of the different challenges and possibilities they meet in HEED-roles (Harris & Barnes, 2009; Tsigra, 2010). These studies also bring up essential factors concerning the male teachers, namely: what

kind of role do they play for the children? More qualitative methods and interviews with the teachers in the future can expand on the already established knowledge that the teachers play a variety of roles in the kindergartens. These range from their activities as playmates, authoritarians, skilled teachers or administration (Harris & Barnes, 2009; Tsigra, 2010). Critically, some teachers also reported that they served as “father figures” for some of the children who lacked their own fathers in their lives due to growing up in single-parent households or divorce (Tsigra, 2010). It is thereby pertinent to believe they would also serve as different *kinds* of influences on the children. And as a conclusive note, more attention can also be given to the effects of the home environment of the children - with a specific focus on their siblings/peers of a similar age as well as their exposure to wider media material.

Conclusions

There are multiple calls for the increased entry of men into communal roles. In a specific view point, policies and research promote the idea that more male kindergarten teachers would bear fruits to the development of young children attending pre-school and on their way to developing into wholesome and contributing members of society. However, in line with other research of both quantitative and qualitative nature, their effects on the children's gender attitudes seem to be rather limited. Taking into account the different limitations and possibilities of this particular study on the other hand, cases can be made that this is a field of socio-developmental research that has vast potential to investigate several interesting topics. These can vary from the detailed experiences of the kindergarten children themselves and how they attribute gender stereotypes to their teachers, but also the many ways in which men and women

both resemble each other and differ in their communal occupational roles. There are also significant findings about the importance of the traits internalised by the children themselves and their aspirations to work in communal roles. Future longitudinal research can look at how these traits both develop and are manifested in future aspirations - and can also bear witness of the importance of children to *learn* these traits from an early age.

One issue also stands out as clear. There is a need for more members and participants in sections of the work force dealing with public health, care and education of the youth. Practices and policies are always looking to improve the working conditions for these employees, as well as continuously raise gratitude for the important work they do. It is therefore important that new and qualified members of these work forces aren't excluded or overlooked simply for their gender. If the children believe that both men and women can perform most of the jobs, and they don't seem to differentiate between the (quality of) work practices between men and women in communal roles - why shouldn't we?

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Appendix

Appendix A: Parents' Questionnaire

Informasjonsside

Prosjekttittel: Utviklingen av holdninger i barnehagen

Prosjektveileder: Førstemanuensis Sarah E. Martiny, Psykologisk Institutt ved UiT

Hovedforskerer: Maria Olsson PhD student., maria.olsson@uit.no; George Ofori Msc. student., gof001@post.uit.no

Introduksjon og hensikt: Ditt barn deltok nylig i et psykologisk studie som forsker på kjønnsutvikling i barnehagen. Dette spørreskjemaet vil ta omlag 5 minutter å fullføre. Vi er hovedsakelig interesserte i rollen barnehagemiljøet spiller på barns utvikling av holdninger. Det er derfor viktig å samle informasjon om andre potensielle påvirkninger (som foreldres holdninger og hjemmemiljøet) som vi kommer til å ha med i dataanalysen vår. Du kan hoppe over spørsmål som du ikke ønsker å svare på. Ditt barn vil ha fått en kode, som står skrevet i begynnelsen av spørreskjemaet. Dette vil gi oss muligheten til å sammenkoble dine svar til ditt barns svar (se ditt barns navn og kode på informasjonsarket). Informasjonen der koder er linket til navnet til barnet ditt blir oppbevart på et adskilt sted, vekk fra spørreskjemaene vi samler inn. Dette innebærer at navnet til barnet ditt ikke vil inngå i noen analyser.

Taushetsplikt: All informasjon fra dette studiet vil behandles strengt konfidensielt. Kun hovedforskerne vil ha tilgang til det fulle datamaterialet. I datamaterialet som skal deles på åpne vitenskapsnettverk vil ALL identifiserbar informasjon bli fjernet, slik at andre forskere som får tilgang på materialet ALDRI vil kunne få tilgang til noen grad av identifiserbar informasjon. Den endelige datafilen blir lagret på en sikker datamaskin og vil bli kodet.

Kontaktinformasjon om studiet: Vennligst ta kontakt med George Ofori dersom du har noen spørsmål om dette studiet. George Ofori kan nås på gof001@post.uit.no eller geo.k.ofori@gmail.com.

Etikk: Dette forsøket gjennomføres av Universitet i Tromsø, og har fått etisk godkjenning av universitetets forskningskomité. Deltagelse er frivillig og du står fritt til å trekke din deltagelse uten å måtte oppgi noe grunn til det. Du trenger heller ikke å delta selv om barnet ditt deltar. For øvrig er ønsket et velkommen dersom begge foreldrene deltar i undersøkelsen. Om du ønsker å trekke din egen eller ditt barns deltagelse, vennligst ta kontakt med George Ofori på gof001@post.uit.no innen 30.12.2017. Ditt datamateriale blir deretter tilintetgjort og ekskluderes fra rapporten.

Vi setter stor pris på din deltagelse!

Ditt barns personlige kode er: _____

De neste spørsmålene vil omhandle fordelingen av husarbeidet hos dere. Selv om situasjonen vil variere fra tid til annen, forsøk å velge alternativet som beskriver det slik det er mesteparten av tiden.

SPM1. Hvor mye av oppvasken hjemme hos dere tar henholdsvis du/ din partner?

- Jeg tar alt
- Jeg tar mesteparten
- Jeg tar litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM2. Hvor mye av husvasken gjør henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM3. Hvor mye av matlagingen gjør henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM4. Hvor mye av klesvasken gjør henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM5. Hvor mye av barnepasset ved å ta vare på barna hjemme tar henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt

- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM6. Hvor mye av barnepasset ved å tilbringe tid med barna tar henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM7. Hvor mye av barnepasset ved å oppfylle deres fysiske behov tar henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten
- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

SPM8. Hvor mye av barnepasset ved å oppfylle barnas følelsesmessige behov tar henholdsvis du og din partner?

- Jeg gjør alt
- Jeg gjør mesteparten

- Jeg gjør litt mer
- Vi deler likt
- Partneren min tar litt mer
- Partneren min tar mesteparten
- Partneren min tar alt
- N/A – Jeg har ikke en partner

De neste spørsmålene handler om dine egne holdninger og tro.

SPM9. Forskjellige folk verdsetter forskjellige typer mål og målsettinger. Vennligst indiker hvor viktig hver av disse målene er for deg.

	Ikke viktig i det hele tatt	Ekstrem t viktig for meg
Hjelpe andre		
Se til andre		
Ta vare på andre		
Status		
Makt		
Overlegenhet		
Nå målene sine		
Kompetanse		
Selvstendighet		

Menn er av natur mer tilbøyelige til å utmerke seg i lederstillinger.

○ ○ ○ ○ ○ ○ ○ ○

SPM12. Vennligst indiker til hvilken grad du er enig eller uenig i følgende påstander:

	Sterkt uenig						Sterkt enig
--	---------------------	--	--	--	--	--	--------------------

Kvinner burde ha de samme sjansene som menn til å være ledere på jobb.

○ ○ ○ ○ ○ ○ ○ ○

Mødre og fedre burde dele ansvaret med å ta med barna til legen eller tannlegen.

○ ○ ○ ○ ○ ○ ○ ○

Menn og kvinner burde lønnes likt for likt arbeid.

○ ○ ○ ○ ○ ○ ○ ○

En kvinnes karriere burde være like viktig som mannens.

Når både mannen og kvinnen jobber utenfor hjemmet burde husarbeidet deles likt.

En kvinne burde ha like mye rett til å be en mann på stevnemøte som mann har å be en kvinne.

Til slutt, vennligst besvar noen spørsmål om deg og barnet ditt (som deltar i studiet). Vennligst merk at vi kommer til å lage et gjennomsnitt av dataene fra disse undersøkelsene. Vi er ikke nevneverdig interesserte i dine spesifikke svar, men i generelle tendenser (forhold mellom barns holdninger, hjemmemiljøet og barnehagemiljøet).

SPM13. Hvor gammelt er barnet ditt (i år og måneder)?

SPM14. Er barnet ditt venstre- eller høyrehendt?

- Høyrehendt
- Venstrehendt

SPM15. Hva er kjønnet på barnet ditt?

- Gutt
- Jente
- Annet

SPM16. Hvor ofte bruker du kjønnslede navnelapper når du henvender deg til barnet ditt, for eksempel: "Hallo gutten/jenta mi"?

- Alltid
- Mesteparten av tiden
- Ca. halve tiden
- Av og til
- Aldri

SPM17. Hvor ofte bruker din partner kjønnslede navnelapper når han/henne henviser deg til barnet ditt, for eksempel: "Hallo gutten/jenta mi" (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)?

- Alltid
- Mesteparten av tiden
- Ca. halve tiden
- Av og til
- Aldri

SPM18. Hva er boforholdene til barnet ditt nå?

- Barnet mitt bor i et hushold med to foreldre (enten fulltid i ett hjem, eller deltid i to hjem hvor begge husholdninger har to voksenpersoner; en forelder og en partner).
- Barnet mitt bor deltid med èn forelder og dens partner, og deltid med en enslig forelder.
- Barnet mitt bor mesteparten av tiden i et hushold med èn forelder.
- Annet. Vennligst beskriv: _____

SPM19.

Har barnet som deltar i undersøkelsen søsken? Vennligst oppgi alder og kjønn til barnets søsken (har du ingen flere barn kan du hoppe til neste spørsmål).

Første søsken _____ år gutt/jente

Andre søsken _____ år gutt/jente

Tredje søsken _____ år gutt/jente

Fjerde søsken _____ år gutt/jente

SPM20. Vennligst oppgi kjønn på kontaktperson (lærer/pedagogisk leder) barnet ditt fikk da han/hun begynte på den avdelingen hun/han går på nå.

- Mann
- Kvinne
- Annet

Avslutningsvis ønsker vi litt informasjon om deg. Hensikten er ikke å identifisere deg, men å finne generelle tendenser i barns utvikling. Dine opplysninger vil forbli strengt konfidensielle.

SPM21. Hva er ditt kjønn?

- Mann
- Kvinne
- Annet

SPM22. Hvor mange år er du?

SPM23. Hvor mange år er din partner (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)

SPM24. Hva er din bakgrunn?

- Født i Norge
- Ikke født i Norge. Hvilket land er du fra? _____

SPM25. Hva er din partners bakgrunn (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)?

- Født i Norge
- Ikke født i Norge. Hvilket land er han/hun fra? _____

SPM26. Snakker barnet ditt mer enn et språk?

- Nei, barnet mitt snakker kun norsk
- Ja, barnet mitt er flerspråklig. Vennligst spesifiser hvilke(t) språk dette gjelder:

- Barnet mitt forstår et annet språk enn norsk, men snakker kun norsk. Vennligst spesifiser hvilke(t) språk dette gjelder: _____

SPM27. Hva er din sivilstatus?

- Singel
- I et forhold
- Gift/Samboerskap
- Enke/enkemann

SPM28. Hva er kjønnet på partneren din (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)?

- Mann
- Kvinne
- Annet/Vil ikke si

SPM29. Hva er ditt høyeste oppnådde utdanningsnivå?

- Ungdomsskole
- Videregående skole
- Universitet/høyere utdanning

SPM30. Hva er din partners høyeste oppnådde utdanningsnivå (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)

- Ungdomsskole
- Videregående skole
- Universitet/høyere utdanning

SPM31. Hva jobber du med? _____

SPM32. Hva jobber din partner med Om du ikke bor med/har en partner, vennligst hopp til neste spørsmål? _____

SPM33. I snitt, hvor mange timer jobber du lønnet i uka? _____

Om du er arbeidsledig/utenfor arbeidsmarkedet, skriv inn 0.

SPM34. I snitt, hvor mange timer jobber partneren din lønnet i uka (om du ikke bor med/har en partner, vennligst hopp til neste spørsmål)? _____

SPM35. Inntekt - hvilken kategori beskriver inntekten i husholdningen din (hvis du bor med en partner - estimer hvor mye dere tjener til sammen), før noen utgifter? Dvs., hvor mye nettoinntekt får du før skatt?

- NOK 0-320 000
- NOK 320 000 - 460 000
- NOK 460 000 - 1 200 000
- NOK 1 200 000 - 2 000 000
- NOK MER ENN 2 000 000

Jeg fylte ut dette skjemaet...

- På egenhånd
- I samarbeid med min partner

Takk for din deltakelse i undersøkelsen!

Dette studiet undersøker innflytelsen som rollemodeller har på barns kjønnsutvikling. Hvis du vil ha mer informasjon om studiet eller om du har noen bekymringer, vennligst ta kontakt med George: gof001@post.uit.no

Appendix B: Teacher's Questionnaire

Informasjonsark

Forskningsprosjekt-tittel: Utviklingen av holdninger i barnehagen

Prosjektveileder: Førsteamanuensis Sarah E. Martiny, Psykologisk Institutt ved UiT

Hovedforskere: Maria Olsson PhD., maria.olsson@uit.no; George Ofori Msc., gof001@post.uit.no

Introduksjon og hensikt: Barn som går i barnehagen du jobber i deltok nylig i et studie om holdninger. Denne undersøkelsen tar omlag 5 minutter å fullføre. Disse spørsmålene omhandler din rolle som ansatt med pedagogisk ansvar for barna. Du kan hoppe over spørsmål som du ikke ønsker å svare på.

Taushetsplikt: Vi har skrevet inn navnet på barnehagen du jobber i på første side av dette spørreskjemaet. Dette gir oss muligheten til å sammenkoble dine svar med svarene til barna der du jobber. All informasjon fra dette studiet vil behandles strengt konfidensielt. Kun hovedforskerne vil ha tilgang til det fulle datamaterialet. Ingen identifiserende informasjon blir publisert eller delt med våre kollegaer, foreldre eller arbeidsgiver. I datamaterialet som skal deles på åpne vitenskapsnettverk vil ALL identifiserbar informasjon bli fjernet, slik at andre forskere som får tilgang på materialet ALDRI vil kunne få tilgang til noen grad av identifiserbar informasjon. Den endelige datafilen blir lagret på en sikker datamaskin og vil bli kodet.

Kontaktinformasjon om studiet: Vennligst ta kontakt med George Ofori dersom du har noen spørsmål om dette studiet. George Ofori kan nås på gof001@post.uit.no.

Etikk: Dette forsøket gjennomføres av Universitet i Tromsø, og har fått etisk godkjenning av universitetets forskningskomité. Deltagelse er frivillig og du står fritt til å trekke din deltagelse uten å måtte oppgi noe grunn til det. Om du ønsker å trekke din egen deltagelse, vennligst ta kontakt med George Ofori på gof001@post.uit.no innen 30.12.2017. Ditt datamateriale blir deretter tilintetgjort og ekskluderes fra rapporten.

Vi setter stor pris på din deltagelse!

Navnet på barnehagen du jobber i er:

SPM1. På en arbeidsplass tar folk ofte ansvar for forskjellige oppgaver.

I hvilken grad er du personen som:

Beskriver meg ikke	Beskriver meg ekstremt godt
-----------------------	--------------------------------------

Organiserer
arbeidsmiljøet

Deltar i sport med
barna

Trøster barna

Kommuniserer med
barna

Deltar eller leder
utendørslek med
barna

Lager kunst med
barna

Organiserer sovetid
for barna

Gir barna emosjonell
støtte

Leder aktiviteter

Disiplinerer barna

Vennligst tilfør noen ekstra-kommentarer om du har dem:

De neste spørsmålene omhandler dine daglige aktiviteter. Forsøk å svare så realistisk som mulig. Merk at det ikke er noen fasitsvar her.

SPM2. Med tanke på det å snakke/henvende deg til barna - bruker du ofte kjønn som en "merkelapp" når du snakker til en gruppe barn på jobb? For eksempel, "God morgen, gutter og jenter!" eller "Kom igjen, jenter!", "Nå går vi inn, gutter!"

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

SPM3. Hvor ofte bruker du kjønn som merkelapp når du gir instruksjoner til barna?

For eksempel: "Sara, kan du gi dette til guttene?" "Oscar, kan du hjelpe guttene med dette?"

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

SPM4. Hvor ofte bruker du kjønn som merkelapp når du snakker til barna?

For eksempel: "Du er en stor jente!" eller "Du er en søt gutt!"

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

SPM5. Hvor ofte bruker du kjønn som merkelapp når du organiserer miljøet i barnehagen?

For eksempel: "Jentene kler på seg først" eller: "Gutter, still dere på en rekke til venstre, jenter, still dere på en rekke til høyre!".

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

SPM6. Hvor ofte deler du en barnegruppe i gutter og jenter under aktiviteter/lek?

For eksempel: "Jentene skal være på kunstrommet/skal tegne, mens guttene rydder opp" eller: "Guttene skal konkurrere mot jentene!"

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

SPM7. Hvor ofte starter du en samtale med barn om kjønnsforskjeller der du legger vekt på at gutter og jenter kan gjøre de samme tingene? For eksempel: "BÅDE gutter og jenter kan gråte."

- Aldri
- Av og til
- Omtrent halvparten av tiden
- Mesteparten av tiden
- Alltid

Jeg føler meg verdsatt på jobb

Jeg liker jobben min

Jeg er glad for å jobbe i
barnehagen

Jeg vil helst jobbe et annet sted

Vennligst fortell oss litt om deg selv. Merk - **dine svar er strengt konfidensielle.**

SPM14. Hvilken aldersgruppe jobber du med nå?

_____ år

SPM15. Hvor mange år har du jobbet som barnehagelærer?

_____ år

SPM16. Hvilke kvalifikasjoner har du?

- Universitetsgrad (eller lignende)
- Videregående skole (eller lignende)
- Annet, vennligst beskriv: _____

SPM17. Kjønn

- Mann
- Kvinne
- Annet

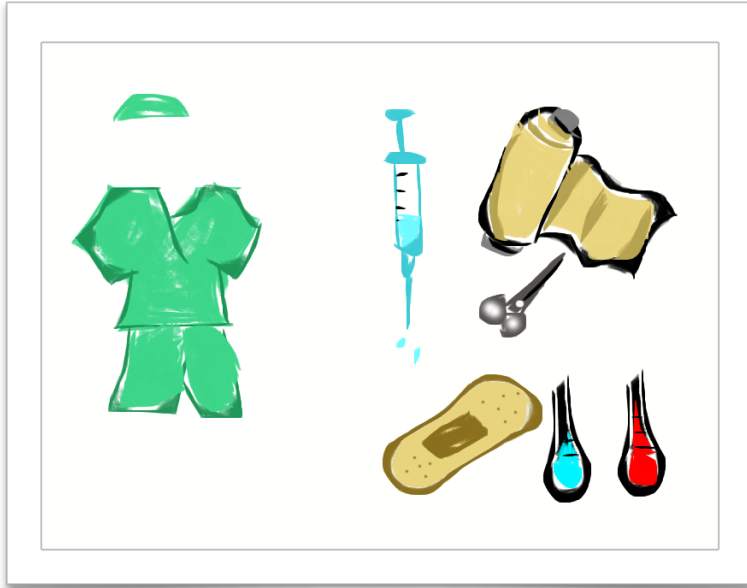
SPM18. Hvor gammel er du? _____ år

SPM19. Hva er bakgrunnen din?

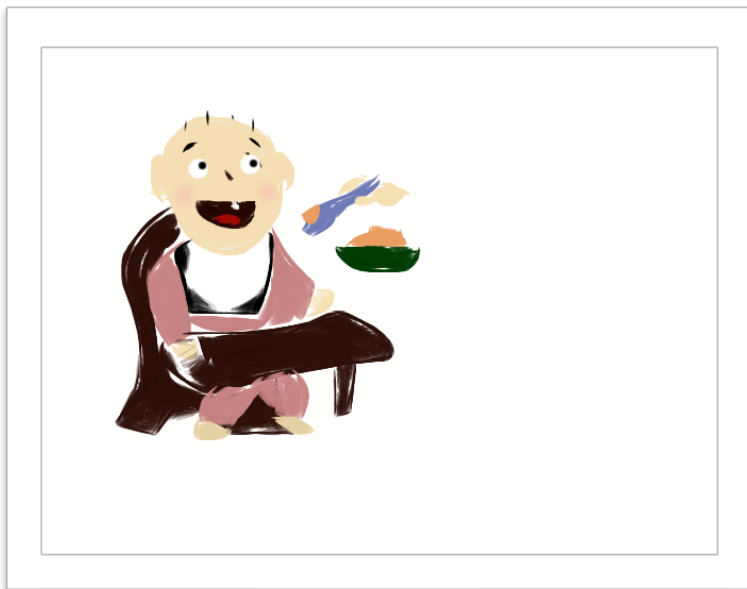
- Født i Norge
- Ikke født i Norge. Hvilket land er du fra? _____

Appendix C: Images for testing of occupational stereotypes

1.) Nurse



2.) Stay at home with baby



3.) Kindergarten teacher



4.) Boss



5.) *Police officer*



Appendix D: Likert scoring options I: Smileys



1.

Indicates “not at all”



2.

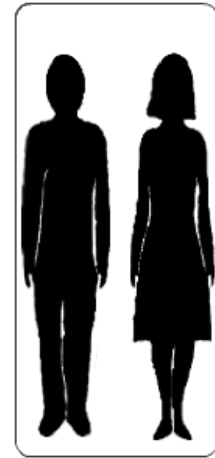
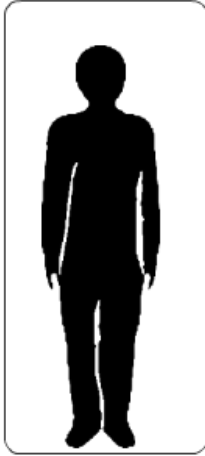
Indicates “a little”



3.

Indicates “very much”

Appendix E: Likert Scoring Options II: Categories



1.

Indicates “only men”

2.

Indicates “only women”

3.

Indicates “both men & women”

Appendix F: Self-Stereotyping measure (Short Stories). Adapted from Bian et al. (2017)

“Nå skal jeg lese noen korte fortellinger for dere om noen barn som jeg kjenner. Det jeg vil at du skal gjøre, er å si om dette barnet høres ut som deg. Nå kan dere trykke på pingvinen en gang, og så en gang til. Nå kan du se alle smilefjesene igjen.”

1. Jeg vet om et barn som virkelig, virkelig liker å konkurrere. Dette barnet prøver alltid å konkurrere med andre.

Liker du å konkurrere med andre? Du svarer ved å trykke på smilefjesene.

2. Jeg vet om et barn som ofte får bestemme hva barnet og vennene dets skal leke med i barnehagen.

Bestemmer du av og til? Du svarer ved å trykke på smilefjesene.

3. Jeg vet om et barn som prøver å hjelpe, hvis de ser at et annet barn er trist eller lei seg.

Pleier du å hjelpe andre barn som er lei seg? Du svarer ved å trykke på smilefjesene.

4. Jeg vet om et barn som liker å være sammen med andre og være nær andre.

Liker du å være sammen med andre og være nær andre? Du svarer ved å trykke på smilefjesene.

5. Jeg vet om et barn som virkelig, virkelig liker å klemme andre. Dette barnet gir alltid klemmer til andre barn.

Liker du å klemme andre? Du svarer ved å trykke på smilefjesene.

6. Jeg vet om et barn som alltid trøster andre hvis de er triste eller lei seg.

Pleier du å trøste andre som er lei seg? Du svarer ved å trykke på smilefjesene.

Appendix G: Role Model Qualities (Morgenroth, Ryan & Peters, 2015)

1. *Do you feel similar to Y?*
2. *Do you want to be like Y when you grow up?*
3. *Do you think you can be like Y when you grow up?*
4. *Is Y like other boys/girls?*

**Y = name of specific kindergarten teacher.*

Appendix H: Information sheet sent to pedagogic leaders



Emne: Invitasjon til å delta i et forskningsprosjektet som heter “Kjønnsutvikling i barnehagen”

Kjære herr/fru/frøken,

Vi gjennomfører forskning i barnehager for å øke vår forståelse av hvordan kjønnsrelaterte holdninger og yrkesaspirasjoner formes i tidlig barndom. Denne forskningen presenteres av Instituttet for Psykologi ved Universitetet i Tromsø, veiledet av førsteamanuensis Dr Sarah E. Martiny. Hovedpunktet i denne forskningen er fremhevet i den norske Regjeringens initiativ ved navn “Handlingsplanen for Kjønnslikestilling i Barnehager og Grunnutdanning 2008-2010”. Vår forskning fokuserer på påvirkningen av positive rollemodeller på kjønnsrelaterte holdninger og perspektiver hos 4-6 årige barn. Vi håper å gjennomføre testing i grupper av 4 barn ved å bruke kategoriseringsoppgaver og strukturerte intervjuer, under vårsemesteret i flere barnehager i Tromsø kommune.

Vi har vært i kontakt med deres barnehage, og avventer svar om dere kunne tenke dere å bli med/ besvarer alle spørsmål dere måtte ha. Ved avtalt dato kommer våre forskere innom for å dele samtykkeskjemaer og informasjonsark til mulig deltagende foreldre. Vi håper dere er villige til å delta i denne forskningen. Hjelpen og samarbeidet fra deres barnehage vil være et verdifullt tilskudd til vår forskning. Funn kan føre til økt teoretisk forståelse av kjønnsutvikling, samt ha implikasjoner for politiske vedtak og nasjonale rammeverk for barnehager. Vi takker for tiden brukt til å lese dette brevet.

Appendix I: Informational consent forms

UiT - Norges Arktiske Universitet
Institutt for Psykologi
77645206
gof001@post.uit.no



Informasjonsskriv og samtykkeskjema for foreldre

Studietittel: *Rollen av rollemodeller på barns kjønnsutvikling*

Sted: Tromsø kommune

Hovedforskere: Maria Olsson (PhD) og George Ofori (MSc)

Prosjektveileder: Associate Professor Sarah E. Martiny

NSD ref: 54209 / 3 / STM

Kontakt tlf.: 77645206

Dette skjemaet er en invitasjon for barnet ditt å delta i en studie som skal undersøke påvirkningen av rollemodeller på barns sosiale kjønnsutvikling i barnehagen.

Hvorvidt du ønsker at ditt barn deltar eller ei er fullstendig opp til deg. Om du ikke vil at barnet ditt skal delta i studiet trenger du ikke oppgi en grunn, og det vil ikke påvirke pleien barnet får i barnehagen. Om du skulle godta barnets deltakelse nå, men endre mening senere er det mulig å trekke barnets deltakelse når som helst. Dette informasjonsskrivet har som mål å hjelpe deg med å bestemme om du ønsker at ditt barn deltar. Det forklarer hvorfor vi gjennomfører dette studiet, hva ditt barns deltagelse vil involvere, og hva som vil skje når studiet er sluttført.

Hvis du er villig til å delta i dette studiet, blir du bedt om å signere samtykkeskjemaet på siste side av dette dokumentet. Du blir gitt et kopi av både informasjonsskrivet for deltagerne og et samtykkeskjema som de kan beholde selv.

Dette dokumentet er 4 sider langt, med et samtykkeskjema vedlagt. Vennligst forsikre at du har lest og forstått samtlige sider.

HVA ER HENSIKTEN TIL STUDIET?

- *Studiets hovedformål er å utforske rollen som rollemodeller spiller på barns holdninger og tanker. I dette studiet har vi som mål å vurdere påvirkningen på barns kjønnsstereotyper og deres fremtidige yrkes-aspirasjoner. Barna blir bedt om å delta i noen morsomme interaktive spill og sorteringsoppgaver i grupper på 2-4 barn. Studiet vil øke vår forståelse av hvordan barn anskaffer holdninger. Det kommer også til å ha implikasjoner for barnehagepraksis.*
- *Forskningen er finansiert av Universitetet i Tromsø og utføres av forskere ved Instituttet for Psykologi.*
- *Studiet har blitt godkjent av etikkomiteen hos Instituttet for Psykologi ved Universitetet i Tromsø og registret hos Norsk Senter for forskningsdata (NSD).*

HVA KOMMER MITT BARN'S DELTAGELSE I DETTE STUDIET TIL Å INNEBÆRE?

- *Barnehagen som barnet ditt går på har sagt seg villige til å delta i studiet.*
- *Barn som deltar i dette studiet vil bli gjort kjent med forskningsteamet i forkant av testingen. Dette teamet består av George Ofori (en masterstudent) og forskningsassistent (som er studenter i profesjonsstudiet i psykologi). Barn blir kun informert om studiet som resultat av foreldres godkjenning. Forskerne kommer til å forklare til barnegruppene hva hensikten til forskningen er og hva det innebærer. Barn blir da spurt individuelt om de er villige til å delta. Om barnet ikke ønsker deltakelse, vil de ikke bli bedt om å oppgi begrunnelse for valgene deres, og barnehagelæreren kommer til å tilby alternative aktiviteter for de barna å delta i.*
- *Testing blir gjort i grupper på 4 barn. Gruppen blir med en mannlig og en kvinnelig forsker til et avsides rom i barnehagen. Hvert barn blir gitt et nettbrett. Forskeren kommer til å barna instruksjoner og demonstrer hvordan å bruke nettbrettet til å besvare spørsmålene.*
- *I alt beregner vi at testingen vil ta mellom 15-20 minutter. Forskeren kommer til å stille barna spørsmål (via historiefortelling) og barna blir spurt om å gi deres besvarelser på nettbrettet deres. Etter testingen kommer forskeren til å gi en aldersriktig debrief til barnegruppene, og barna vil få anledningen til å stille forskeren spørsmål som de måtte ha.*

- **SPØRRESKJEMA TIL FORELDRENE**

- *Foreldrene til barna vil også få tildelt et kort spørreskjema å fylle ut. Spørsmålene angår demografisk informasjon og generelle holdninger. Vi kommer ikke til å se på individuelle svar, og datamaterialet vil bli sammenslått og tatt gjennomsnitt av under dataanalyse og i eventuell publisering. Hensikten av datainnsamlingen er å statistisk kontrollere for påvirkningen som hjemmemiljøet kan ha på barns holdninger, og dette er standard prosedyre i denne type forskning.*

HVA ER DE MULIGE FORDELENE AV DETTE STUDIET?

- *Det er ingen risiko forbundet med deltagelse i dette studiet.*
- *Funn fra dette studiet vil ha implikasjoner for politiske vedtak i barnehagen og førskoleutdanning. Slike vedtak vil også ha innvirkninger for fremtidige barn som skal gå på barnehagen i fremtiden.*
- *Forskerne tar fullt ansvar for barnas velvære gjennom hele studiefasen. Barna blir spurt om de samtykker til deltagelse gjennom hele forsøket, og barn som velger å ikke delta blir på ingen måte straffet eller behandlet ufordelaktig. Barn som ønsker å trekke sin deltagelse fra studiet under forsøkene vil kunne gjøre det uten å bli bedt om å gi en begrunnelse.*

HVA ER MINE RETTIGHETER?

- *Deltakelse i dette studiet er fullstendig frivillig. Barn er frie til å nekte å delta, eller til å trekke seg fra forsøket ved alle praktiske tidspunkt, uten å erfare noe ulempe.*
- *Foreldres deltagelse er fullstendig frivillig og barnet ditt kan delta i studiet selv om du bestemmer deg for å ikke gjennomføre spørreskjemaet.*
- *Dataene blir ikke delt med tredjeparter. All informasjon som kan føre til identifisering av barnehagen eller barnet blir ikke inkludert i noen rapportering av funnene. Foreldre som, av en eller annen grunn ønsker å trekke sitt barns deltagelse kan gjøre det ved å kontakte forskningsansvarlig og oppgi deres tildelte kodenavn. Av praktiske årsaker vil det kun være mulig å trekke sin deltagelse frem til 01-06-18.*

HVA SKJER ETTER STUDIET?

- *En oppsummering av alle funnene fra studiet kan bli tilgjengelig ved etterspørsel fra hovedforskerne. Vennligst kontakt barnehagen din for å arrangere dette. Dette blir tilgjengelig fra mars 2018.*

HVEM KONTAKTER JEG FOR MER INFORMASJON ELLER OM JEG HAR BEKYMNINGER?

Om du har noen spørsmål eller bekymringer om studiet kan du kontakte:

George Ofori, MSc student, gof001@post.uit.no



Samtykkeskjema

Jeg forstår at min deltakelse i dette studiet er frivillig, og at jeg kan trekke mitt barns deltakelse fra studiet når som helst, uten at det går utover pleien han/hun får fra barnehagen. Jeg forstår at min egen og mitt barns deltakelse i dette studie er konfidensiell, og at ingen materiale som kan brukes i å identifisere barnet mitt, kommer til å brukes i noen rapporter fra dette studiet. Ved å signere dette skjemaet gir jeg mitt samtykke til forskernes innsamling og prosessering av informasjonen til barnet mitt.

Vennligst returner dette skjemaet til barnehagen innen _____

Barnets navn: _____

Foreldres navn: _____

Signatur: _____ Dato: _____

Appendix J: Models & figures

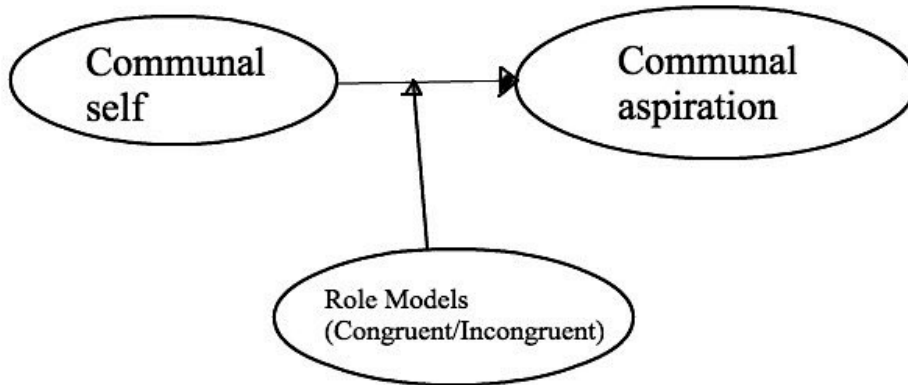


Figure 1. Hypothesised model of moderation in RQ4 a&b

Appendix K: List of words used for Stroop task

Communal	Agentic	Neutral
Baby	Bestemme Ting	Drikke Kaffe
Barnehagelærer	Jeger	Kaffe
Klemme	Livvakt	Musikk
Kose	Politikonstabel	Musikkinstrumenter
Sykepleier	Skryte	Spise
Trøste	Styre	Vindu

Footnotes

¹ Data from 26 of the participants was collected from kindergartens outside Troms municipality (in a neighbouring municipality). These were not controlled for in this thesis, and were included in the main sample.

² Parents' and teachers' data were collected both via an online survey (through *Qualtrics*) and through paper questionnaires. These control variables will not be included in the following thesis.

³ The secretary (the second person accompanying the experimenter to the data collection) reported that all bilingual children had no problems with comprehension of tasks, and therefore they were included in sample.

⁴ The smiley scoring scales were subsequently used throughout the project in all questions enquiring about self-stereotyping or occupational aspirations.

⁵ In kindergartens where there was a mixed-gender teaching staff, the children were asked about a male teacher. In all-female teaching kindergartens, the teachers asked about were women. Responses were measured on a scale that ran from 1 to 3 (not at all to very much so, $\alpha = .71$). In the following thesis, we will not analyze role model qualities.

Appendix G shows a question protocol for the measure.

⁶ In the first phase, a female university student volunteered to record words for the task. 6 of the words were communal words, 6 of them agentic and the last 6 a collection of neutral words (See table for list of words used (in Appendix K). The neutral words served as a baseline for comparison. The words were subsequently pitched to imitate the frequencies of a male voice. Responses were recorded in milliseconds (ms) response time on tablets where the children were asked to indicate a congruent link between the gender of a voice heard and the word they hear. The following analyses will not include this variable.