Norwegian ECEC staff's thinking on quality of interaction

This study presents Norwegian ECEC staff members' thinking on *quality of interaction.* Open-ended interviews were analysed using qualitative thematic analysis based on the Caregiver Interaction Profile scales. Findings are that ECEC staff members include both basic *care* aspects of interaction and *educational* aspects of interaction in their thinking, but weigh them differently. Immediate responses focussed mainly on seeing, meeting, supporting and communicating with children, characterized as *sensitive responsiveness,* and an aspect of basic *care* interaction. After prompts, the focus was still on the above-mentioned aspects, but thoughts characterized as *educational* aspects of interaction also featured. They focused on *verbal communication,* mainly as a social tool, linked to *sensitive responsiveness* and rarely expressed thoughts about child development theories or objectives in the Norwegian framework plan. Their own role beyond basic *care* aspects was seldom mentioned, and they seemed to hold a 'taken for granted attitude' to children's learning and development.

Keywords: Norwegian ECEC, ECEC staff's thinking, quality of interaction, basic care and educational interaction, the CIP scales

Introduction

In Scandinavia, including Norway, interest in research on quality in ECEC has increased steadily, as well as research on relationships, interaction and communication (see Bondebjerg, Jenssen, Larsen, Schunck, & Vestergaard, 2017). Quality in ECEC includes different dimensions of quality, often described as structural, process and result quality. Process quality focuses on 'what is going on' in ECEC, including relationships, interaction and communication between ECEC staff and children, and is acknowledged as the most important dimension of quality in ECEC. A review of Scandinavian ECEC research from 2006 to 2015 focusing on educational environments in ECEC, concluded that there is need for more research focusing on quality of interaction between ECEC staff and children in Norway (Evertesen, Tveitereid, Plischewski, Hancock & Størksen, 2015). The authors argued that it 'must be ensured that adults' relational/interaction

competence is good enough' (Evertesen et al., 2015, p. 60). Few studies[1] in Norway or Scandinavia have focused on ECEC staff's thinking on quality of interaction, including their theories and beliefs about basic care aspects of interactional quality versus educational aspects of interactional quality. Overall, there have been few studies focusing on ECEC staff's thinking on interaction particularly related to educational interaction, compared to research on teachers' thinking on educational interaction (Cherrington & Loveridge, 2014). However, one Swedish study, investigating preschool teachers' professional identity and professional development, found, based on the preschool teachers' narratives, that preschool teachers changed their view of basic care and education during eight years of practice (Hensvold, 2011). In the study, Hensvold (2011) found that children's learning and educational content were invisible when preschool teachers described their pedagogical work after four years of practice. The preschool teachers focused mostly on their own actions, and basic care was in focus. After 12 years of practice, they focused more on children's learning as well as educational content than on basic care aspects, and they focused less on their own actions (Hensvold, 2011). To our knowledge, no studies in Norway, or Scandinavia, have focused mainly on ECEC staff's thinking on quality of interaction, in particular their theories and beliefs about basic care aspects of interaction versus educational aspects of interaction. The aim of the current study is to explore Norwegian ECEC staff's thinking on quality of interaction, posing the following research question: *What theories and beliefs do Norwegian ECEC staff hold and articulate about quality of interaction, in particular about caring versus educational dimensions of interaction?*

[1] Studies including ECEC staffs' articulation of personal theories, beliefs, views and perspectives on quality of interaction

Teachers' thinking

Since around 1980, teacher education research has made significant progress regarding the complex relationships between teachers' thinking and behaviour (cf. Fang, 1996, p. 47). Core assumptions within this research have been that teachers as professionals a) make reasonable judgements and decisions in complex environments and often unpredictable moment-to-moment situations, and that b) their thoughts, judgements and decisions guide their classroom behavior (see Fang, 1996; Stern & Shavelson, 1983). Research has conceptualized *teachers' thinking* into three fundamental categories; teachers' planning, teachers' interactive thoughts and decisions, and teachers' theories and beliefs (Fang, 1996), something which has inspired the current study.

ECEC staff typically need to deal with many unpredictable moment-to-moment situations during a day and have to make fast judgements and decisions affecting their behavior. Depending on the age of the children, they are also involved in different aspects of interactional quality, basic care interactions and more educational interaction (Helmerhorst, Riksen-Walraven, Vermeer, Fukkink, & Tavecchio, 2014). In addition, ECEC staff often, as in Norway, work in teams consisting of members with different educational backgrounds. All these features might create challenges for ECEC staff members' thinking on interaction, and particularly on educational aspects of interaction (Cherrington & Loveridge, 2014). However, research has found that theories and beliefs influence how teachers behave, their educational decisions and classroom practices (Fives & Gill, 2017), especially when teachers are coping with unpredictable moment-to-moment situations (cf. Kagan, 1992).

Teachers' theories and beliefs

What do we know about teachers' theories and beliefs and how they develop? Theories and beliefs have often been described and used interchangeably with terms such as

values, perceptions, perspectives, images, conceptions, views, thoughts, judgments,and personal practical knowledge (cf. Fives & Buehl, 2012; Pajares, 1992). They are viewed as individuals' constructions of something being 'true', based on experiences (cf. Fives & Buehl, 2012; Pajares, 1992; Watt & Richardson, 2017). According to Richardson (2003), theories and beliefs come from three experience sources: individual experiences, experiences related to work, and experiences with formal knowledge. Alternatively explained, they are a 'rich store of general knowledge … that teachers' have and that affects their planning, their interactive thoughts and decisions, as well as their classroom behaviour' (Fang, 1996, p.49). Research has for example found that teachers often use their own experiences and experiences from members in their own community to justify their own actions and practices, often as a replacement of more formal knowledge (cf. Fives & Buehl, 2012).

ECEC staff members' thinking, practices and articulation of thoughts

Research and literature is limited regarding the role of ECEC staff members' thinking when it comes to interaction (Cobanogulu & Capa-Aydin, 2015). However, research shows a reasonable level of congruence between what ECEC staff think is important and their behaviour (Wilcox-Herzog, Ward, Wong, & McLaren, 2015). Theories and beliefs seem to underpin ECEC staff's interactions and relationships with individual children, as well as the interactions and relationships and the socio-emotional climate within the child group (Hamre & Pianta, 2001; Rubie-Davies, 2017). Particular moment-to-moment interactions between ECEC staff and children have been found to have a strong impact on children's learning and development. Children seem in particular to benefit from adults 'that have the skills, knowledge and judgement to make good decisions and that have the opportunity to use them' (Copple & Bredekamp, 2009, p. 5).

Because teachers have theories and beliefs about many issues, they seldom reflect actively upon them, unless challenged, and may not be aware of their own theories and beliefs (cf. Watt & Richardson, 2017). Similar to what we know about teachers, we assume that ECEC staff's expertise is closely embedded in different experiences and that they often have difficulties articulating what constitutes their behaviour, theories and beliefs, and that much of their knowledge is tacit (Polyani, 2009). International research has also found that articulating theories and beliefs is difficult (Moyles, Adams, & Musgrove, 2002; Stephen, 2010, Wood & Bennett, 2000). Stephen (2010) found that ECEC staff who had an intuitive or tacit approach to teaching and actions had challenges regarding articulating goals behind educational and behavioural strategies. He also found that it was less common for ECEC staff to articulate how and when to scaffold children's learning (Stephen, 2010). According to Stephen (2010), ECEC staff who had 'taken for granted' attitudes to children's learning also underestimated their own role in influencing and supporting children's learning and development.

However, we also bear in mind that theories and beliefs are usually conveyed in the form of anecdotes and stories, through what Bruner (Munby, Russel & Martin, 2001, p. 877) termed the *narrative mode of thought.* The *paradigmatic mode of thought*; talking in terms of theoretical concepts and ideas, is much less common, and is something one needs to take into account when aiming at tapping staff's thinking about current central concepts and ideas in the field.

The Norwegian ECEC context

Today, nine out of ten children in Norway aged between one and five attend an ECEC institution, named *barnehage*[2], and the majority of children (including one-year olds) have a full-time place (SSB, 2018). They can stay in their ECEC institution 41 hours or more each week, Monday to Friday, from around 07:00 to 17:00, with no limit of hours per day.

Norwegian ECEC institutions are defined as the first step in the national educational system as well as being a part of the welfare service. As regulated by law currently, one ECEC teacher can have responsibility for maximum seven children when the children are under the age of three, and can be responsible for maximum 14 children when the children are above three. However, when this study was conducted the regulation for number of children were nine and 18 respectively. On average, the staff[3]-child ratio is 1-3 when children are under the age of three and 1-6 when children are above three (SSB, 2018).

The Norwegian Framework Plan for Kindergartens' Content and Tasks (FWP) has a holistic view on children's wellbeing, learning and development. Care, play, learning and formation are core activities related to children's development, and children are viewed as active learners who develop through experiences and interaction with the environment (Norwegian Directorate for Education and Training, 2017). Focusing on interaction in ECEC have been one of the main tasks for ECEC staff in Norway. For example, the previous FWP (in force from 2006 to 2017) particularly pointed to the importance of quality of interaction for children's learning and

[2] Barnehage = Kindergarten

[3] Including ECEC teachers, childcare- and youth workers and/or assistant

development, and ECEC staff were expected, on a regular basis, to pay attention to the interactional quality in their groups (Ministry of Education and Research, 2006). Quality of interaction is thus not a new concept or idea for Norwegian ECEC staff, especially not for those who have worked in the field for some years. The new FWP, in force from 2017, also states that all staff shall monitor, actively encourage and maintain relationships between staff and children and between the children 'in order to foster well-being, happiness and achievement' (Norwegian Directorate for Education and Training, 2017, p. 19).

Quality in ECEC is a multifaceted and complex construction, though it can be broadly defined as different 'aspects of the environment and children's experiences that nurture child development' (Layzer & Goodson, 2006, p. 558). What constitutes the core quality and most important for children's wellbeing, learning and development, is interaction between people in ECEC, and the most important of all is staffs' skills and capacity of being both sensitive and stimulating (cf. Howard et al., 2018; Siraj et al., 2017). The difference between high and low interactional quality is often related to how, and to what extent, staff provide emotional support and developmental stimulation (ex. staff who quickly see and respond to children's signals versus staff who overlook or react inadequately to children's signals, and staff who provide much extra developmental stimulation versus staff who not provide any extra stimulation).

Recent observation studies in Norway have shown surprisingly low interactional quality in ECEC institutions. One large-scale study using the Infant Toddler Environment Rating Scales (ITERS-R), measuring process quality in 206 toddler groups (one-to-three year olds) at group level, found considerable variation between toddler groups regarding quality scores for listening and talking, and interaction; from low (ex. little sensitivity, communication or book reading) to high (ex. staff expanding children's

thinking and playing by adding new ideas). For interaction, the groups on average scored at minimal quality level range (ex. friendly staff, but few attentions given when children behave well) (Bjørnestad & Os, 2018). Another large-scale study using the Caregiver Interaction Profile (CIP) scales, measuring 168 staff members' individual interaction skills while interacting with groups of children during regular activities such as free play and mealtimes, found relatively low scores. The study revealed only small differences between ECEC teachers[4] and assistants[5], found moderate scores for sensitive responsiveness (ex. inconsistency in the way staff provide emotional support), low scores for developmental stimulation (ex. staff rarely provide something extra) and lowest scores for fostering peer interaction (ex. staff give little attention to positive peer interactions) (Bjørnestad, Broekhuizen, Os, & Baustad, 2018). Klette, Drugli and Aandahl (2018) found similar patterns as Bjørnestad and Os (2018) and Bjørnestad et al. (2018) in a small-scale study investigating staff's interactions with children during lunchtime in 11 toddler groups. Klette et al. (2018) revealed low quality of interaction for ECEC staff's sensitivity, language support and facilitation for exploration.

The current study

The current study investigates 22 ECEC staff members' thinking and articulation of quality of interaction and is part of an in-depth study investigating how to improve staff members' interaction quality through in-service training. Before starting in-service training, it was of importance to gain knowledge about staff members' thinking and articulation of quality of interaction. Focusing on staff's thinking is also important in the Norwegian context where we have limited research on ECEC staff members'

[4] Holding a bachelor degree in ECEC

[5] Have no educational background in ECEC

thinking on interactional quality and limited research involving all groups of staff members' voices.

The Caregiver Interaction Profile (CIP) scales are used as the theoretical framework for the analysis of the data as it defines both basic care aspects of interaction and more educational aspects of interaction, all assumed to influence positively on children's wellbeing and development (Helmerhorst et al., 2014). The CIP scales are explicitly divided into six different aspects of interaction; three basic care interaction scales (sensitive responsiveness, respect for children's autonomy and structuring and limit setting) and three more educational interaction scales (verbal communication, developmental stimulation and fostering positive peer interaction). The CIP scales were developed in the Netherlands by the Dutch Consortium for Research into Child Care (NCKO) in order to assess individual caregivers' interaction skills while interacting with a group of children (see Helmerhorst et al., 2014). To apply the scales for research in Norway, they were translated into Norwegian in close collaboration with the creators, and minor adaptions were made, due to organisational differences between the Dutch and the Norwegian ECEC context (see Bjørnestad, Gulbrandsen, Johansson, & Os, 2013). The CIP scales are inspired by attachment theory and research, theory about prosocial development, and theory about developmental appropriate practice, as well as other tools developed for assessing interaction skills, such as the Observational Record of the Caregiving Environment (ORCE), and the Environment Rating Scales (see Helmerhorst et al., 2014; Helmerhorst, Riksen-Walraven, Fukkink, Tavecchio, & Gevers Deynoot-Schaub, 2017). However, it differs from other tools by focusing on individual caregivers' interactions with a group of children instead of reflecting all caregivers' interaction skills at group level or by focusing on individual caregivers' interactions in one-to-one-situations with children.

To our knowledge, the current study is the first to investigate and identify ECEC staff members' thinking on quality of interaction through using the CIP scales as theoretical framework for the analysis, interpretation and discussion.

Research Method

In order to investigate Norwegian ECEC staff's thinking and articulation on quality of interaction, in particular their theories and beliefs about basic care aspects of interaction versus more educational aspects of interaction, a qualitative approach was applied, consisting of open-ended face-to-face individual interviews based on the principle of hierarchical focussing (cf. Tomlinson, 1989). As suggested within the hierarchical focussing approach, the interviews started with one broad, pre-defined main question: 'What comes to your mind when I say good relationships and good interaction in ECEC?' The content and the questions throughout the interview went from the general to the more specific, and respondents were asked to elaborate their expressions or provide examples (Tomlinson, 1989). The respondents were also asked to respond to pre-defined themes unless they touched upon the themes themselves (cf. Marton & Booth, 2000). For example: 'Can you say something about what you think characterizes good interactions between you and the children?' 'How do you see your own role concerning interaction in ECEC?' 'Can you give me one example from practice?' Follow-up questions were planned and used to accommodate for ECEC staff's difficulties articulating theories and beliefs. The hierarchical focussing approach was seen as relevant to help staff articulate their thinking, theories and beliefs, aspects that may otherwise remain tacit. Hierarchical focussing functions as a pedagogical tool and helps respondents further reflect on their thinking and become more aware of their own knowledge base. The nature of hierarchical focusing also allows us to compare results across the respondents.

The respondents were recruited from ECEC institutions in a specific region participating in the large-scale study Better Provison for Norway's Children in ECEC (BePro). One criteria for participating in the current study was that all staff members working with a child group had to give their consent, resulting in all staff members from three child groups in one institution and all staff members from four child groups in another institution gave their consent. Due to practical considerations (time, researchers and funding) it was not possible to expand sampling outside this region, something that limits the scope of the study.

The respondents represent public ECEC institutions with no specific educational philosophy beyond the Nordic tradition. Apart from one, all respondents were female, and the age range was between 28 and 56. Their working experience in ECEC institutions varied from four to 36 years. However, on average they had 16 years of experience and were quite experienced. Half of the respondents hold a bachelor degree as ECEC teacher, five hold an upper secondary school trade certificate as childcare- and youth worker, and six had no ECEC specific education (assistants). The fact that the current study includes respondents who do not share a common educational background, poses challenges.

The interview agenda was piloted before data collection, and minor changes were done before the face-to-face interviews with the respondents. The respondents were informed in advance about the focus of the interview, and more details were presented at the beginning of the interview. The interviews were audiotaped and transcribed to allow for more in-depth analysis of the data. The study follows ethical standards and privacy policies approved by the Norwegian Social Science Data Service and the Norwegian Data Protection Authority. The data has been anonymised by making generic reference to the respondents.

Data analysis

As mentioned previously, the Caregiver Interaction Profile (CIP) scales were chosen as the theoretical framework for data analysis because they focus on different aspects of interactional quality, both basic care aspects and more educational aspects, all assumed to influence positively on children's well-being and development in ECEC (Helmerhorst et al., 2014). The CIP scales were also chosen because they have a holistic view on children's learning and development, in line with the Norwegian FWP (Norwegian Directorate for Education and Training, 2017). Other reasons for chosing the CIP scales were due to two of the authors' earlier experience with the scales, recent research showing relative low interactional quality in Norwegian ECEC institutions, and that the CIP scales are theory- and research based, and designed explicitly to measure different aspects of interactional quality in ECEC (Helmerhorst et al., 2014; Helmerhorst et al., 2017).

The CIP scales were originally designed as a video-observation tool to study caregivers interacting with groups of children in physical care situations (ex. diapering), free play situations (ex. free choice in activities and materials), meal moments (ex. children having snack or meal), and transition periods (ex. in the wardrobe between indoor and outdoor activity) (Helmerhorst et al., 2014). Three scales are characterized as basic care aspects of interaction, whereas the other three are characterized as more educational aspects of interaction. The first scale, *sensitive responsiveness*, refers to the extent to which a caregiver recognizes children's individual emotional and physical needs and responds appropriately and promptly to their cues and signals. *Respect for autonomy* refers to the extent to which a caregiver is nonintrusive and recognizes and respects the validity of children's intentions and perspectives, while *structuring and limit setting* refers to the ability of a caregiver to clearly communicate expectations towards children and structure situations accordingly, and to set clear and consistent

limits on the children's behaviour. The scale *verbal communication* refers to the frequency and quality of verbal interactions between caregiver and children, while *developmental stimulation* concerns the degree to which a caregiver deliberately attempts to foster children's broad development. The sixth scale, *fostering positive peer interaction,* refers to a caregiver's guidance of interactions between children in the ECEC centre (Helmerhorst et al., 2014, pp. 773-774).

In the current study, concepts and content from the CIP scales were used in a modified way as a framework for analysing the respondents' thinking and saying instead of their actions or doings. Due to the focus of the study, we searched for *thematic* responses (Edwards, 2010) in line with different aspects of interactional quality described in the CIP scales. Thematic segments of texts and fine-grained meaning units (Edwards, 1997; 2010) were identified and placed into different categories consisting of concepts and aspects of interactional quality in the CIP scales. We then searched for immediate (without prompts) and extended (after prompts) responses related to two main categories; basic care interaction and educational interaction, and for the six sub-categories referred to above. Due to the amount of data MaxQda, electronic software for qualitative analysis, was used to organize and analyse the data. MaxQda particularly helped us systematise data into different groups as well as linking relevant quotes to each other.

See table 1 below for an overview of types of responses, main categories and sub-categories.

[Insert Table 1 here]

Results

In this section of the paper, the findings are presented under four main headings: *immediate responses - basic care aspects of interactional quality; immediate responses*

- educational aspects of interactional quality; extended responses - basic care aspects of interactional quality; extended responses - educational aspects of interactional quality.

As part of the analysis, we compared the thematic focuses held by the respondents against their level of qualification and years of experience but found very little variation between the respondent groups. We thus decided not to present data divided by different sub-groups of respondents.

Immediate responses - basic care aspects of interactional quality

Seventeen out of twenty-two respondents focused on basic care aspects of interactional quality in their immediate responses.

[Insert Table 2 here]

Fifteen respondents focused on the importance of staff being *sensitive and responsive*, recognizing children's individual emotional and physical needs and responding appropriately and promptly to their cues and signals. They talked about being physically and mentally close to children, to see, listen to and meet the children. They expressed themselves in quite general terms, and often exemplified own actions or what they thought all staff should do, as shown in the following quotes. Staff 'being on the floor together with the children and getting in contact with the children' (Assistant 1) characterizes good interaction as well as 'seeing the children and meeting the children so that everyone is seen, it is the adults' responsibility first and foremost' (ECEC teacher 6). The same teacher (6) also said that it is important to see and meet children in order to make children feel secure.

Three respondents (including one who also mentioned sensitive responsiveness) focused on the importance of *respecting children's autonomy*, recognizing and

respecting the validity of children's intentions and perspectives in their immediate responses. They particularly focused on the importance of mutual respect between staff and children and between the children, exemplified in the following way: 'Good interaction, I think that everybody goes along with what they have to offer, in play and in dialogue, and that no one takes control of everything' (Childcare- and youth worker 5). One ECEC teacher (3) connected mutuality explicitly to children's experiences of 'being a participant in the group', to the importance of 'belonging'.

In addition, two respondents who focused on sensitive responsiveness also focused on aspects related to *structuring and limit setting*, particularly on structuring situations accordingly so children can play well. Exemplified by the Childcare- and youth worker (1) who said: 'we are where it is needed, and we distribute ourselves in different rooms and catch up with what's going on.'

Immediate responses - educational aspects of interactional quality

Only six out of twenty-two respondents focused on educational aspects of interactional quality in their immediate responses.

Four respondents focused on *verbal communication* or communication more generally, but closely linked with basic care aspects of interaction and particularly *sensitive responsiveness*: 'the adult listens and catches what the child tries to ... or understands what the child tries to express' (ECEC teacher 2). Or like this one expressed it: 'then I think we communicate well and they trust me, and can feel that I am listening to them' (Assistant 3). The last respondent was the only one who talked about herself. The respondents mainly talked in terms of 'we' or 'you' and about general actions and what you should do.

One respondent, a childcare- and youth worker (4), focused on *developmental stimulation*, but in an implicit way. She focused on the importance of stimulating

children's language by saying that good interaction is 'to help them [children] to use the language'. In addition, one respondent who also focused on sensitive responsiveness, focused implicitly on how they supported children's independence by stating that 'we do teach them a little so they can get dressed, and things like that' (Childcare- and youth worker 2).

Extended responses - basic care aspects of interaction quality

After prompts and follow-up questions, all the respondents focused on care aspects of interaction quality.

[Insert Table 3 here]

All the respondents focused on importance of staff being attentive and on *sensitive responsiveness.* They still focused mostly on their own or others' actions, or on what they think is important to do, as shown in the following quotation:

> I think it is important to see everyone during the day … to have eye contact with them, repeat what they say, or ask them questions about what they say, to confirm what they want to say, then, what they are occupied with. To meet them with eye contact as well as with body contact (ECEC teacher 6).

The respondents highlighted children's security. Security seemed to be a goal in itself, and it was only occasionally that they focused on why security was important for the children.

Twenty-one respondents focused on *structuring and limit situation*s, particularly on structuring situations and themselves accordingly, as shown by this one: 'it is important that we [the staff] split up and not just stay there talking with each other' (Childcare- and youth worker 1). Twelve of these respondents also focused on the importance of communicating expectations clearly to children, and setting clear and

consistent limits for children's behaviour. Once again, children's security was highlighted, both explicitly and implicitly, though mostly implicitly like this: 'Once we [children and I] have got a good relationship I am strict, but I try to be clear and try to be fair so that they know where they have me' (ECEC teacher 8). Alternatively said like this: 'I think it's very important to set limits. They [children] know what is allowed, they know what is not allowed, and they know that they should ask' (ECEC teacher 4).

Eighteen respondents focused on *respecting children's autonomy*, and particularly on recognizing and respecting the validity of children's intentions and perspectives, meeting and supporting children's views and choices. As shown in this example: 'it is that I see her [a girl]… what she is able to do, to see her, and that I meet her at her level' (Childcare- and youth worker 4). Alternatively, as expressed by this one:

> I think it is important to be present when you are at work … not just physically in the room, but by being where the children are and by participating in what they find interesting, and be happy because of that … it is about being interested in the same that the children are interested in (Assistant 2).

Extended responses - educational aspects of interactional quality

After prompts and follow-up questions, all respondents focused on aspects related to educational interaction.

Twenty-one focused on *verbal communication*, though mostly for emotional and social supportive purposes, closely related to basic care aspects of interaction, and particularly sensitive responsiveness: '[we] answer children when they wonder about something or when they want to talk with us or … to answer children and be present is actually very important' (ECEC teacher 11). Six of them focused explicitly on being a good listener, like in this example: 'It is important to be a good listener, to give the child time to talk before you say something' (Assistant 5). Eight of them focused on being in

dialogue with children as shown by this example: ‘It is a lot about communication … I try all the time to communicate, I try to talk with them and not be passive’ (ECEC teacher 2). However, they rarely focused on their own role in stimulating children’s language, or children’s language development.

Twenty respondents also focused on *developmental stimulation,* though they focused mostly on children’s learning through everyday events and playing with peers and not on how they deliberately attempted to foster children’s broader development. None of the respondents focused on stimulating children’s creativity or cognitive development, and they rarely linked interaction to educational goals or educational content, except for the use of communication, learning about colours, songs, music and rhymes and learning to use their body. One of the respondents said the following: ‘when you hear the word learning, I think about the school. However, they [children] learn all time, all day … it permeates throughout the day. Much of that [learning], of course, comes through play’ (ECEC teacher 5). How some of the respondents view their own role regarding stimulating children’s learning and development became particularly visible through responses like this: ‘We very rarely have some learning-time. It is sometimes if they [children] want to, but that is not what I think ... that is not what I spend so much thoughts and energy on… no, it is not’ (ECEC teacher 3).

Twenty respondents also focused on *positive peer interaction,* like this one expressed it: ‘it is first and foremost that they [children] play, that they can communicate with each other, talk with each other, and help each other, share toys and fix it if something happens…’ (Assistant 5). They highlighted that children learn to play together, learn social rules, learn to behave, solve conflicts, give and take, and experience and learn to trust each other, learn to care for others, and learn how to develop friendships through play and interactions with each other. Less than half of the

respondents explicitly talked about their own role in fostering positive peer interaction or helping, supporting and guiding children's play or interactions, and when they did, they focused on: 'it is about being there, being observant to what is happening and follow, regulate, guide [them] and be there' (Childcare- and youth worker 4).

Discussion

The current study provides insight into 22 Norwegian ECEC staff members' thinking and articulation regarding quality of interaction, in particular their perspectives on basic care aspects of interaction versus more educational aspects of interaction.

The main finding is that Norwegian ECEC staff focus on both basic care interaction aspects and more educational interaction aspects in their characterization of quality of interaction, though they seem to weigh them differently and hold a fairly narrow perspective on quality of interaction. By using a hierarchical focussing interview approach, the respondents had many opportunities to reflect on their own thinking, theories and beliefs about the concept. They were explicitly asked to elaborate their view of education, learning and caring in ECEC if they did not touch upon the theme themselves. Despite this, they mostly focused on and articulated perspectives related to what the CIP scales characterize as basic care aspects of interaction and most of all on *sensitive responsiveness*. Their focus relates closely to the understanding of warm relationships in ECEC (La Paro et al., 2004; Sabol & Pianta, 2012), in line with the Norwegian ECEC tradition, where warm relationships between ECEC staff and children have been highly valued (ex. Bae, 2004). Questions about how the staff in this study understand educational interaction, and particularly the importance they place on education and children's learning in ECEC, can also be raised. ECEC staff in the current study seemed somehow to relate education in ECEC to education in schools, in particular formal education. On the other hand, they also had a 'taken for granted'

attitude to children's learning, saying that children learn a lot particularly through peer interaction. They clearly do not seem to want to identify themselves with the school system, despite the fact that ECEC institutions are defined as the first phase in our national educational system. However, in Norwegian research, there has been little focus on educational aspects in ECEC, and few studies have defined education or educational environment in ECEC (see Evertesen et al., 2015).

The findings in this study support earlier research showing that ECEC staff have challenges regarding their thinking and articulation of theories and beliefs (ex. Cherrington & Loveridge, 2014; Moyles, Adams, & Musgrove, 2002; Stephen, 2010, Wood & Bennett, 2000). Stephen (2010) found for example that it was difficult for ECEC staff to articulate how and when to scaffold children's learning and development, something that also seemed to be difficult for the respondents in the current study. Caring aspects might be more visible while working with young children (1-6 years old), and ECEC staff may reflect more actively upon care aspects and are also more aware of them (Watt & Richardson, 2017). This may explain why they focused mainly on basic care aspects of interaction, or on educational aspects of interaction closely related to basic care aspects, particularly to sensitive responsiveness in the CIP scales.

Without having a clear understanding of how to scaffold educational aspects in ECEC institutions, it might be difficult for ECEC staff to articulate their theories and beliefs about it. Looking at educational aspects of interaction based on the CIP scales, the concept involves different aspects; verbal communication, developmental stimulation and fostering positive peer interaction, all assumed to be important for children's well-being, learning and development (Helmerhorst et al., 2014). Of these, the ECEC staff in the current study focused mostly on *verbal communication*, though mainly as a social tool. Regarding *developmental stimulation* and *positive peer*

interaction, they most of all highlighted children's opportunities to learn from each other through everyday events and play. Implicitly, they highlighted children's social competence and social development. They rarely focused on their own roles, on child development theories, or on educational goals or content in the FWP in their characterizations of quality of interaction. Their theories and beliefs were mostly conveyed through the narrative mode of thoughts (Munby et al., 2001, p. 877) and it might be that their expertise has a tacit character, and is therefore difficult to articulate (Polyani, 2009). This is in line with Stephen (2010) who found that ECEC staff with a tacit approach to their actions in particular had challenges articulating goals behind educational and action strategies, and he also found that they had a 'taken for granted' attitude to children's learning.

The strong focus on basic care aspects of interactional quality in the current study, in particular *sensitive responsiveness* both in the respondents' immediate and extended responses, indicate that ECEC staff are aware of this aspect regarding children's well-being and development. However, whereas theory and research on quality of interaction link ECEC staff's sensitive responsiveness to childrens emotional, social and academic competences (cf. Hamre & Pianta, 2001, Helmerhorst et al., 2014; La Paro et al., 2004), the respondents mostly linked it implicitly to children's emotional and social development. They rarely explicitly linked sensitive responsiveness to children's academic competence or to their own role in influencing and supporting children's learning and development, by for example using language or verbal communication in order to support children's acquisiton of language, or to develop or challenge children's thinking, or fostering children's broader development (Helmerhorst et al., 2014; Sylva et al., 2007). In this way, the respondents hold a narrow view of interactional quality, especially related to their own roles beyond facilitating basic care.

On the other hand, being sensitive and responsive, particularly recognizing children's individual emotional and physical needs and responding appropriately and promptly to their cues and signals, are among the most important skills for ECEC staff (Helmerhorst et al., 2014).

To sum up, the main finding in the current study shows that the respondents, Norwegian ECEC staff, focus on both basic care interaction aspects and educational interaction aspects in their thinking on quality of interaction, though they hold a narrow perspective. They mostly focus on and articulate perspectives related to what the CIP scales describe as basic care aspects of interaction and seemed to highlight different dimensions of basic care aspects differently as well. In this way, our findings show similar patterns as found in recent national observation studies, particularly Bjørnestad, Broekhuizen, Os, & Baustad (2018), but also to some extent Klette et al. (2018). The same patterns are also found in recent Dutch observation studies using the CIP scales (Helmerhorst, Riksen-Walraven, Gevers Deynoot-Schaub, Tavecchio, & Fukkink, 2015, Helmerhorst et al., 2017).

Interestingly, we found little variation between thematic focuses held by the ECEC staff based on their educational background and years of experiences. We did not find, as Hensvold (2011) did, that more experienced ECEC staff to a larger degree focused on children's learning and educational content (ex. related to the FWP) and focused less on their actions compared to staff with less experience. All respondents, regardless of years of experience, mostly articulated their thoughts in terms of actions, not in terms of theoretical concepts or ideas, or in the form of what Bruner called paradigmatic mode of thought (Munby et al., 2001, p. 877). However, this finding is in line with Stephen (2010) who also found that ECEC staff had challenges regarding articulating goals behind educational and behavioural strategies.

Limitations

Due to the fairly limited number of respondents in the current study, it is not possible to generalize from the findings, and interviews with staff from ECEC institutions in other parts of Norway might have given other findings. The interviewer in this study has many years of experience from working in ECEC centre, something which might have influenced both the respondents and the interviewer. However, the goal was not to generalize from the study, but to gain valuable insight into some staff's thinking and articulation on interaction.

Conclusion and implications

The current study presents 22 Norwegian ECEC staff members' thinking and articulation on quality of interaction, in particular their theories and beliefs about basic care aspects of interaction versus more educational aspects of interaction. On average, the staff members were quite experienced and the idea of quality of interaction should be well-known for most of them, particularly through statements in the national FWP (Ministry of Education and Research, 2006; Norwegian Directorate for Education and Training, 2017). However, the study shows that ECEC staff only to a limited degree balance between care aspects of interaction and educational aspects of interaction in their descriptions of daily interactions with children. Our study indicates a further need for focusing on quality of interaction in ECEC. This might be related to cultural understanding or weighing of basic care versus educational aspects of interactional quality. However, because ECEC staff have been found to have challenges articulating their theories and beliefs, investigating staff's actual actions or doings will provide valuable additional knowledge, something which will follow. By using the CIP scales for the analysis, it will be possible to investigate the role of ECEC staff's thinking about

interaction with their actual practices, a research area that today is limited, both nationally and internationally.

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References

Bae, B. (2004). *Dialoger mellom førskolelærer og barn: En beskrivende og fortolkende studie.* Det utdanningsvitenskapelige fakultet, Institutt for spesialpedagogikk. Oslo: Unipub. https://skriftserien.hioa.no/index.php/skriftserien/article/view/62/61

Bjørnestad, E., Broekhuizen, M., Os, E., & Baustad, A.G. (2018). Interaction quality in Norwegian ECEC for toddlers measured with the Caregiver Interaction Profile (CIP) scales. Manuscript submitted for publication.

Bjørnestad, E., Gulbrandsen, L., Johansson, J.-E., & Os, E. (2013). Metodiske idealkrav og nødvendige tilpasninger: Foreløpig tilstandsrapport fra prosjektet 'Better provision for Norway's children in ECEC: A study of Children's well-being and Development in ECEC. http://blogg.hioa.no/betterprovision/files/2013/07/Metodisk-idealkrav-1.pdf

Bjørnestad, E. & Os, E. (2018). Quality in Norwegian childcare for toddlers using ITERS-R, *European Early Childhood Education Research Journal.*

Bondebjerg, A., Jenssen, A., Larsen, T.C., Schunck, N., & Vestergaard, S. (2017). Forskningskortlægning og –vurdering av skandinavisk dagtilbudsforskning for 0-6 årige i året 2015. København: Dansk Clearinghouse for Utdannelsesforskning, DPU, Aarhus Universitet.

Cherrington, S. & Loveridge, J. (2014). Using video to promote early childhood teachers' thinking and reflection. *Teaching and Teacher Education 41*, 42-51.

Cobanogulu, R. & Capa-Aydin, Y. (2015). When early childhood teachers close the door: Self-reported fidelity to a mandated curriculum and teacher beliefs. *Early Childhood Research Quarterly 33*, 77-86.

Copple, C. & Bredekamp, S. (2009) (Eds). *Developmentally Appropriate Practice in Early Childhood Programs. Serving Children from Birth through Age 8.* 3d ed. Washington, DC: National Association for the Education of Young Children.

Edwards, A. (1997). Guests Bearing Gifts: The Position of Students Teachers in Primary School Classrooms. *British Education Research Journal, 23*(91), 27-37.

Edwards, A. (2010). Qualitative design and analysis. In G., M. Naughton, S. A. Rolfe, & I. Siraj-Blatchford (Eds). *Doing Early Childhood Research. International perspectives on theory and practice.* (pp. 155-175). Berkshire: Open University Press.

Evertesen, C., Tveitereid, K., Plischewski, H., Hancock C., & Størksen, I. (2015). På leit etter læringsmiljøet i barnehagen. En synteserapport fra Læringsmiljøsenteret ved Universitetet i Stavanger. Stavanger: Læringsmiljøsenteret.

Fang, Z. (1996). A review of research on teacher beliefs and practices. Educational Research, 38(1), 47-65. http://dx.doi.org/10.1080/0013188960380104

Fives, H. & Buehl, M.M. (2012). Spring cleaning for the "messy" construct of teachers' beliefs: what are they? which have been examined? what can they tell us? In K. R. Harris, S. Graham, and T. Urdan (Eds). *APA Educational Psychology Handbook: Vol. 2. Individual Differences and Cultural and Contextual Factors*. American Psychological Association.

Fives, H. & Gill, M.G. (2017). (Eds). *International Handbook of Research on Teachers' Beliefs.* New York: Taylor & Francis.

Hamre, B.K. & Pianta, R.C. (2001). Early teacher-child relationships and the trajectory of childrens school outcomes through eighth grade. *Child Development, 72*(2), 625-638.

Helmerhorst, K. O. W., Riksen-Walraven J. M.A., Vermeer H. J., Fukkink, R. G., & Tavecchio L. W. C. (2014). Measuring the Interactive Skills of Caregivers in Child Care Centers: Development and Validation of the Caregiver Interaction Profile Scales. *Early Education and Development, 25*(5), 770-790.

Helmerhorst, K. O. W., Riksen-Walraven, J. M. A., Gevers Deynoot-Schaub, M. J. J. M., Tavecchio, L. W. C., & Fukkink, R. G. (2015). Child care quality in The Netherlands over the years: A closer look. *Early Education and Development, 26* (1), 89-105

Helmerhorst, K.O.W., Riksen-Walraven, J.M.A., Fukkink, R.G., Tavecchio, L.W.C., & Gevers Deynoot-Schaub, M.J.J.M (2017). Effects of the Caregiver Interaction Profile Training on Caregiver–Child Interactions in Dutch Child Care Centers: A Randomized Controlled Trial. *Child Youth Care Forum, 46*(3), 413-436.

Hensvold, I. E. (2011). En förändrad yrkesidentitet. Förskollärares berättelser fyra och tolv år efter examen. *Nordisk Barnehageforskning, 4*(1), 1-16.

Howard, S.J., Siraj, I., Melhuish, E., Kingston, D., Neilsen-Hewett, C., de Rosnay, M., Duursma, E., & Luu, B. (2018). Measuring interactional quality in pre-school setting: introduction and validation of the Sustained Shared Thinking and Emotional Wellbeing (SSTEW) scale. *Early Child Development and Care*, published online first: https://doi.org/10.1080/03004430.2018.1511549

Kagan, D.M. (1992). Implications of Research on Teacher Belief. *Educational Psychologist*, 27(1), 65-90.

Klette, T, Drugli, M.B., & Aandahl, A.M. (2018). Together and alone a study of interactions between toddlers and childcare providers during mealtime in Norwegian childcare centres, *Early Child Development and Care*, 188(3), 387-398, DOI:10.1080/03004430.2016.1220943

La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoreing System: Findings from the Prekindergarten Year. *The Elementary School Journal, 104*(5), 409-426

Layzer, J. I., & Goodson, B. D. (2006). The "quality" of early care and education settings: definitional and measurement issues. *Evaluation Review, 30*(5), 556-576.

Marton, F. & Booth, S. (2000). *Om lärande.* Lund: Studentlitteratur.

Moyles, J., Adams, S., & Musgrove, A. (2002). Using reflective dialogues as a tool for engaging with challenges of defining effective pedagogy. *Early Childhood Development and Care, 172*(5), 463-478.

Munby, H., Russel, T., & Martin, A.K. (2001). Teachers' Knowledge and How It Develops. In Richardson, V. (Eds.), *Handbook of Research on Teaching*. (pp. 877-904).

Norwegian Directorate for Education and Training. (2017). *Framework plan for kindergartens – content and tasks*. Oslo: Norwegian Directorate for Education and Training.

Ministry of Education and Research. (2006). *Framework plan for the content and tasks of kindergarten*. Oslo: Ministry of Education and Research.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*, 307-332.

Polyani, M. (2009). *The Tacit Dimension.* Reissue. Chicago, Ill.: The University of Chicago Press.

Richardson, V. (2003). Preservice teachers' beliefs. In J.P. Sikula, T.J. Buttery & E. Guyton (Eds). *Handbook of research on teacher education* (2nd ed., 102-119). New York: Macmillan.

Rubie-Davies, C. (2017). Teachers' instructional beliefs and classroom climate. Connection and Conundrums. In H. Fives and M.G. Gill (Eds). *International Handbook of Research on Teachers` Beliefs*. (pp. 266-300). New York: Taylor & Francis

Sabol, T.J., & Pianta, R.C. (2012). Recent trends in research on teacher-child relationships. *Attachment & Human Development, 14*(3), 213-231, DOI:10.1080/14616734.2012.672262

Siraj, I., Kingston, D., Neilsen-Hewett, C., Howard, S., Melhuish, E., de Rosnay, M., …Luu, B. (2017). *A review of the current international evidence considering quality in early childhood education and care programmes – in delivery, pedagogy and child outcomes*. Sydney: NSW Department of Education.

Statistics Norway (SSB). (2018). Education. Kindergartens 2017. Retrieved from https://www.ssb.no/barnehager

Stephen, C. (2010). Pedagogy: the silent partner in early years learning. *Early Years, 30*(1), 15-28.

Stern, P., & Shavelson, R. (1983). Reading teachers' judgements, plans, and decision making, *Reading Teacher, 37*(3), 280-286.

Sylva, K., Taggart, B., Siraj-Blatchford, I., Totsika, V., Ereky-Stevens, K., Gilden, R., et al. (2007). Curricular quality and day-to-day learning activities in pre-school. *International Journal of Early Years Education, 15*(1), 49-65.

Tomlinson, P. (1989). Having it Both Ways: hierarchical focusing as research interview method. *British Educational research Journal, 15*(2), 155-176.

Watt, H.M.G. & Richardson, P.W. (2017). A motivational analysis of teachers' beliefs. In H. Fives and M.G. Gill (Eds). *International Handbook of Research on Teachers` Beliefs*. (pp. 191-211). New York: Taylor & Francis.

Wilcox-Herzog, A. S., Ward, S. L., Wong, E. H., & McLaren, M. S. (2015). Preschool teachers' ideas about how children learn best. An examination of beliefs about

developmentally appropriate practice. In H. Fives, & M. G. Gill (Eds.). *International handbook of research on teacher beliefs* (pp. 421–435). New York: Taylor and Francis.

Wood, E. & Bennett, N. (2000). Changing theories, changing practice: exploring early childhood teachers' professional learning. *Teaching and Teacher Education, 16,* 635-647.

Table 1. Overview of types of responses, main categories and sub-categories

Type of responses	Main categories	Sub-categories
Immediate/extended responses	Basic care interaction	Sensitive responsiveness
		Respect for autonomy
		Structuring and limit setting
Immediate/extended responses	Educational interaction	Verbal communication
		Developmental stimulation
		Positive peer interaction

Table 2. Immediate responses. Number of respondents providing answers within the different categories in parentheses. Examples of thematic responses observed in the data

Main categories	Sub-categories	Examples
1. Basic care aspects (17)	a) Sensitive responsiveness (15)	Understanding children Seeing/listening and meeting children Promoting children's security
	b) Respect for autonomy (3)	Mutuality Respecting and accepting each other
	c) Structuring and limit setting (2)	Dividing children in small groups Distributing staff in different rooms
2. Educational aspects (6)	a) Verbal communication (4)	Listening to children, try to understand them Mutuality, turn-taking
	b) Developmental stimulation (2)	Teaching children to become independent Helping children to use and develop the language
	c) Positive peer interaction (6)	Teaching children how to play Helping children how to get friends

Table 3. Extended responses. Number of respondents providing answers within the different categories in parentheses. Examples of thematic responses observed in the data

Main categories	Sub-categories	Examples
1. Basic care aspects (22)	a) Sensitive responsiveness (22)	Seeing/listening and meeting children Interpreting children's signals Promoting children's security Confirming children
	b) Respect for autonomy (18)	Seeing children as individuals Respecting and supporting children's perspectives Showing interest in children's interests Mutuality
	c) Structuring and limit setting (21)	Helping children organising their play Distributing staff in different rooms Dividing children in small groups Setting limits, being consequent
2. Educational aspects (22)	a) Verbal communication (21)	Having a common interest in conversations Interpreting children's expressions Listening to children Mutuality, turn-taking
	b) Developmental stimulation (20)	Meating children on their own level Helping children master new things Much learning though play and everyday activities Children learning through being together
	c) Positive peer interaction (20)	Children playing together, listening to and respecting each other, waiting for turn Mutuality in play Having fun