The selection of informants in kindergarten research in Norway: A critical review

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ABSTRACT
The institution of the kindergarten serves important functions in western societies. The mandate of kindergarten staff reflects this, encompassing aspects of vital importance for children's well-being and their learning and development processes. Empirical research is needed to scrutinise how kindergarten staff perform these tasks. Analyses of previous studies (Gulbrandsen, Johansson & Nilsen, 2002; Hopperstad, Hellem & Kjørholt, 2005; Borg, Backe-Hansen & Kristiansen, 2008) indicate that while assistants are the main occupational group in Norwegian kindergartens, they have rarely been engaged as informants in kindergarten research. This article reports results from a literature review that investigated which occupational groups have featured as informants in Norwegian kindergarten research from 2008 to 2017. The searches resulted in 149 hits; kindergarten assistants were included as informants in only 43 hits, and they were never the sole occupational group investigated. In closing, the article discusses the methodological and epistemological implications resulting from the skewed representation of kindergarten staff.

Keywords: review, kindergarten staff, validity, methodological implications, representation

SAMMENDRAG
Utvelgelse av informanter i norsk barnehageforskning. En kritisk litteraturstudie
Barnehagen som institusjon har en viktig funksjon i vestlige samfunn. Mandatet til barnehagen gjenspeiler dette, og det omfatter aspekter som er sentrale for barns trivsel, læring og utvikling. Det er behov for empirisk forskning på hvordan personale i barnehagene utfører sitt oppdrag. Analyser av tidligere studier (Gulbrandsen, Johansson & Nilsen, 2002; Hopperstad, Hellem & Kjørholt, 2005; Borg, Backe-Hansen & Kristiansen,
Introduction

This study investigates which groups of staff members have been engaged as informants in empirical kindergarten research. In this context, kindergarten includes various kinds of institutions that take care of small children during the day. An important argument for using staff as research subjects is that they are of great importance to the children’s well-being, learning and development. Through spending many hours with the children each day, staff play a decisive role in what children experience in kindergarten (Aukrust & Rydland, 2009; Bjørnestad & Pramling Samuelsson, 2012).

This study investigates the degree to which the different occupational groups are represented in previous research on kindergartens. The purpose of the article is to explore which staff members have been challenged to describe and define this central social institution. If the patterns of the selection and representation of kindergarten staff as research participants are skewed, this might in turn affect the resulting body of knowledge and the validity of research in this field. We argue that these elements are of vital importance also beyond the Norwegian context.

By conducting a literature review of empirical kindergarten research, this study aims to provide a firm foundation to investigate possible gaps in the body of knowledge about an institution that has become increasingly important in western countries. In recent decades, there has been a substantial increase in the number of empirical studies related to Norwegian kindergartens. Doctoral studies addressing such topics as professionalisation (Eik, 2014; Ødegård, 2011), early literacy stimulation (Gjems, 2006; Hofslundsengen, 2017), care (Foss, 2009), structural organisation (Seland, 2009) and didactical work (Håberg, 2015) point to a field that is attracting increased research interest. This study, however, investigates who among the kindergarten staff are being engaged as informants in Norwegian empirical research. In this study, ‘informant’ refers to a person who is formally asked to participate in research and to provide information about a specific topic. Informants may offer information through, for example, surveys, interviews and observations (Miles, Huberman & Saldana, 2014; Thagaard, 2018). Informants may offer an insider’s perspective concerning the research questions, so the choice of informants is of vital importance.
Background

The present study is conducted in a Norwegian context, where the concept of kindergarten (in Norwegian, ‘barnehage’) does not distinguish between children under or over three years of age. Kindergarten in Norway provides an educational and pedagogical opportunity, open to all children from the age of one until schooling starts at age six (Kunnskapsdepartementet, 2017). As a matter of policy, kindergarten in Norway is defined as an initial stage of education, but not as a kind of formal schooling; rather, learning is integrated in childcare and play activities. Historically, Froebel’s pedagogy is the central basis for Nordic kindergarten practice. The child’s inherent potential, play, and cultural and social activities are emphasised. Central traditions are both the academic and social function, in the sense of creating conditions which counteract social inequalities (Broström, 2009). Parental leave in Norway is of twelve months duration following the birth of a child. The government guarantees a place in kindergarten for children from the age of about one year. As a result, about 80% of all one-year olds and about 92% of the entire child population aged 1–6 are enrolled full-time in kindergarten (SSB, 2019).

In Norway, there are three main groups among kindergarten staff who might be selected as research subjects: chairs, pedagogical leaders and assistants. By attaining a bachelor’s degree in early childhood education and care, one can become a kindergarten teacher. The same qualification is required to work as a pedagogical leader or a chair in a kindergarten. The main responsibility of chairs is to oversee all the work done in the institution. Meanwhile, pedagogical leaders work directly with children and carry the main responsibility for a department, supervising the assistants and directing the daily life and well-being of a group of children. In contrast, assistants have no formal education requirements, but are responsible for a variety of tasks that engage directly with the children, including feeding them, playing, reading and taking care of them throughout the day (Løvgren, 2012; Smeby, 2011). The ratio between pedagogical leaders and assistants in Norway is traditionally 1:2; for example, this means that a department with 18 children aged 3–5 is staffed by one pedagogical leader and two assistants. This ratio is unusual compared to other Scandinavian countries, where the numbers are reversed (Korsvold, 2005). In August of 2018, however, the government changed the official ratio to 1:1 (Regjeringen, 2018), but the tradition where the majority of staff are assistants persists. Assistants are still the largest occupational group in Norwegian kindergartens. Consequently, research into how the assistants are doing their work and examinations of the assistants’ perspectives and experiences represent important topics in kindergarten research, with potential significance for children’s welfare, learning and play.

Research status

To the best of our knowledge, no previous literature review has investigated the inclusion of assistants as informants in kindergarten research. Earlier research overviews, however, have offered individual findings pointing to the importance of such a study. The
authors’ analyses of previous research overviews indicate that the main group of informants in Norwegian research have been kindergarten teachers, while other staff members, such as assistants, as well as parents and children, have taken part to a lesser extent (Alvestad, Johansson, Moser & Søbstad, 2009; Bjørnestad & Pramling Samuelsson, 2012; Borg, Backe-Hansen & Kristiansen, 2008; Borge, 1995; Gulbrandsen, Johansson & Nilsen, 2002; Hopperstad, Hellem & Kjørholt, 2005). Furthermore, these results correspond with the findings of other Scandinavian research reviews (Bondebjerg, Jessen, Larsen, Schunck & Vestergaard, 2017; Bondebjerg, Jessen, Jusufbegovic & Vestergaard, 2018; Bondebjerg, Jusufbegovic, Qvortrup & Vestergaard, 2019; Højen-Sørensen, Kristiansen, Jørgensen & Wendt, 2016; Larsen et al., 2010; Larsen et al., 2012; Larsen et al., 2013; Nordenbo, 2009; Nordenbo et al., 2009; Nordenbo et al., 2010; Sommersel, Vestergaard & Larsen, 2013; Wendt & Jørgensen, 2015). We scrutinised these summaries for information about which occupational groups were selected as informants. We found, however, that this question has received little attention in previous reviews. Bent Olsen, who searched in both Nordic and international databases, claims that assistants ‘can only tell a story of exclusion; they are almost non-existent in terms of research attention.’ (2007, p. 25, authors’ translation).

The lack of knowledge about assistants in kindergarten research was an important premise for the Norwegian research project Meistring av førskulelærarrolla i eit arbeidsfelt med lekmannspreg (MAFAL, abbreviation, in English, ‘Mastering the role as kindergarten teacher in a field dominated by laymen’). The project was financed by The Norwegian Research Council (2008–2010). ‘Laymen’ has been used in Norwegian as a term for assistants due to their lack of formal education. Quantitative data collection for this project was carried out with the help of a nationwide questionnaire, sent to both kindergarten teachers and assistants in 1,000 kindergartens in the spring of 2009 (Løvgren, 2014; Løvgren & Gulbrandsen, 2012; Smey, 2011; Steinnes, 2014; Steinnes & Haug, 2013; Vatne, 2012). A total of 1,357 assistants and 1,192 pedagogical leaders answered the questionnaire, and a central issue among the questions was the division of labour between the professional groups. The qualitative data for the same project included observation and interviews of kindergarten teachers and assistants (Håberg, 2015). This review is intended to investigate to what extent assistants have been selected as informants in empirical research on kindergarten-related topics, from the year MAFAL started in 2008 until 2017.

Research question

The research question guiding this study is:

To what extent have assistants been selected as informants in empirical kindergarten research in Norway, and what methodological challenges arise from this?

The goal of this study is to contribute to this field of knowledge by (1) covering the most recent developments on the topic, (2) building a firm foundation for its inferences and
quantifying its findings, and (3) discussing critically the methodological implications of its results. Furthermore, the authors provide an overview of what types of research assistants have been invited to participate in: qualitative or quantitative. An underlying question in this study is to investigate who is carrying out studies concerning kindergartens. This is relevant because findings from other Nordic countries suggest that kindergarten teachers, or others with a strong connection to kindergarten as institutions, are doing the research; this might influence their choice of informants (Haug, 2003).

Methodology

This study is based on a critical review of empirical research from Norwegian kindergartens that relied on staff as informants. According to Grant and Booth (2009, p. 93), a critical review includes an extensive examination of the literature and ‘includes a degree of analysis and conceptual innovation’. This approach seeks to both identify and aggregate the literature about its topic. For this study, the literature review is organised according to a five-step method: starting with clearly formulated questions, making explicit the inclusion criteria to identify relevant studies, searching for the relevant studies, summarising them and then interpreting the findings (Brandt, Lutfiyya, King & Chioreso, 2014). These steps are divided into two main phases: data collection and data analysis (Røkenes & Krumsvik, 2014).

Data collection

Predetermined criteria

The selection of criteria for inclusion and exclusion in this study emerged from the research question and began with five main criteria for coverage. The first criterion is that the research was carried out in Norwegian kindergartens and produced PhD theses or peer-reviewed articles. Each publication was counted. Article-based PhD theses were counted as consisting of journal articles, where each article is an individual scientific contribution, while monographs were each counted as one publication. The second criterion for inclusion was that publications must use kindergarten staff as informants. The third criterion was that the publications were published between 2008 and 2017, since the research topic only concerns studies after the initiation of the MAFAL Project, which acknowledged the absence of assistants in kindergarten research. The fourth criterion was that the publications were written in Norwegian, Danish, Swedish or English, the predominant languages for empirical Norwegian kindergarten research. The fifth criterion concerned the relevant sources for the research. The database Oria was selected, as it includes NorArt, Idunn, ERIC, Academic Search, Sage, Taylor and Francis, Ebook Central and other sources. Searching in Oria ensured access to all databases that are available at Norwegian research libraries. In addition, another database was consulted – the Nordic Base of Early Childhood Education and Care (nb-ecec.org). These five criteria are presented in Table 1.
Table 1: Inclusion and exclusion criteria.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Included</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication type</td>
<td>Peer-reviewed articles, PhD dissertations</td>
<td>Books, masters’ and bachelors’ theses, reports, evaluations (grey literature)</td>
</tr>
<tr>
<td>Focus</td>
<td>Empirical research from Norwegian kindergartens using staff members as informants</td>
<td>Non-empirical research from Norwegian kindergartens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empirical research from Norwegian kindergartens using parents, children, owners or others as informants</td>
</tr>
<tr>
<td>Language</td>
<td>Norwegian (bokmål/nynorsk), English, Swedish, Danish</td>
<td>Other languages</td>
</tr>
<tr>
<td>Data bases</td>
<td>Oria, nb-ecec.org</td>
<td>Other</td>
</tr>
</tbody>
</table>

Search process

Searches were performed using different combinations of the following terms: barnehage* + forskning* OR forsking* + prosjekt* OR studi* OR empiri* + assistent* + phd. Seven searches combining the different search terms were performed in the Oria database, as presented in Table 2. Some of the hits in searches 1–7 were duplicates and were therefore excluded. Furthermore, a search of the nb-ecec.org databases was included, referred to in Table 2 as search 8. As this is a source for Nordic kindergarten research, all 278 hits for the variable Norge (Norway) were investigated manually. Some of the resulting hits were not peer-reviewed (for example, book chapters), so much of the work for this search involved sorting out which studies met the criteria for this study. Other hits duplicated searches 1–7 and were therefore eliminated. As a result of these procedures, 184 hits were excluded, so search 8 generated 94 new hits. Subsequently, a manual search was performed (search 9), based on the hits in searches 1–8 that appeared to be parts of PhD dissertations. Eight articles that had not come up as hits in the earlier searches were found in this way. Finally, different combinations were used in Oria corresponding to searches 1–7: kindergart* + research + empiri* + Norway OR preschool + research + empiri* + Norway OR kindergarten* + assistant + empiri* + Norway OR preschool + assistant + empiri* + Norway OR kindergarten* + assistant* + Norway OR preschool* + assistant* + Norway OR kindergarten* + phd + Norway OR preschool* + phd + Norway. Searches 10–17 gave only 14 relevant hits. The search process and the sources used are presented in Table 2.

Table 2: Search procedure and results.

<table>
<thead>
<tr>
<th>Search</th>
<th>Sources</th>
<th>Hits</th>
<th>Included</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searches 1–7</td>
<td>Oria</td>
<td>455</td>
<td>83</td>
<td>387</td>
</tr>
<tr>
<td>Combinations: barnehage* + forskning* + assistent*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search 8</td>
<td>nb-ecec.org</td>
<td>278</td>
<td>94</td>
<td>184</td>
</tr>
</tbody>
</table>

(Continued)
The results of the database searches included 184 hits in total (cf. Table 2), based on the inclusion and exclusion criteria set out in Table 1 and excluding duplicates. Articles that were not peer reviewed were excluded. The target publications were then printed out and assessed in full after all the searches were complete. After reading the full text of the source, 35 of the hits from searches 1–17 were found not to meet the inclusion criteria and were excluded. The number of relevant publications was therefore reduced to 149.

**Table 2: (Continued)**

<table>
<thead>
<tr>
<th>Search</th>
<th>Sources</th>
<th>Hits</th>
<th>Included</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search 9</td>
<td>Based on articles that were presented as part of a PhD dissertation.</td>
<td>8</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Manual search</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Searches 10–17</td>
<td>Oria</td>
<td>614</td>
<td>14</td>
<td>600</td>
</tr>
<tr>
<td>Combinations:</td>
<td>kindergarten* + research + Norway + assistant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,355</td>
<td>184</td>
<td>1,171</td>
</tr>
<tr>
<td>After reading full texts</td>
<td></td>
<td></td>
<td></td>
<td>149</td>
</tr>
</tbody>
</table>

**Figure 1:** Overview of the search process.
It was surprising that so many publications were excluded after the search process was complete, but according to Hart (2018), it is necessary to read and evaluate research findings analytically and critically. Even though the search process was thorough and comprehensive, this study may have missed relevant publications because of its inclusion criteria, the choice of databases or for other reasons. The data was collected by the first author of the study, while both authors participated in the analysis and writing stages. Appendix A presents the full list of publications retrieved from our sources, whereas Appendix B lists the publications that included assistants as informants.¹

**Data analysis**

Before presenting the results of the study later in the article, we will describe our analytical strategy. The 149 publications found through searches based on the specified inclusion and exclusion criteria were reviewed carefully. They were archived in EndNote, along with short notes about each study. All the relevant hits were then analysed in an Excel document. By coding and categorising (Miles, Huberman & Saldana, 2014), we scrutinised the publications for information about which groups of kindergarten staff were selected as informants, as well as the researchers’ educational backgrounds and the methodological approaches used (qualitative, quantitative or mixed methods). The rationale for registering the latter was to investigate whether there were patterns of methodological approaches in the studies where assistants figured as informants.

The publications included were then sorted according to the categories of informants mentioned in the data: assistants, kindergarten teachers, pedagogical leaders, chairs and staff. Kindergarten teachers and pedagogical leaders were categorised as the same kind of staff because most kindergarten teachers in Norway work as pedagogical leaders. In some of the publications, no distinction was made between different occupational groups; they were all called ‘employees’ (ansatte) (Figenschou, 2017), ‘staff’ (personale) (Hillesøy & Ohna, 2014), ‘adults’ (voksne) (Bae, 2009) or ‘practitioners’ (Sandseter, 2014), for example. In the remainder of the analysis we use the overall concept ‘staff’. In some other publications, it is clear which occupational group is relied on as informants, but their numbers are unknown (for example Bjørgen, 2011; Larsen, 2014; Hagen & Haukenes, 2017). Publications that have used this methodological approach and which have obviously used assistants as informants are considered to be relevant publications for this study.

**Results**

**Groups of informants among kindergarten staff**

Figure 2 shows that the category of kindergarten teachers/pedagogical leaders was by far the largest group of informants engaged in Norwegian kindergarten research.

¹ Appendix A and Appendix B are not included in this article, but they are available online, please see (Häberg & Leer-Salvesen, 2020a) and (Häberg & Leer-Salvesen, 2020b).
In 21 publications (14.1%) the occupational background was unknown; these were coded simply as ‘staff’. In the other 128 publications, assistants were selected as informants in 43 publications (28.9%; see Appendix B). Kindergarten teachers and pedagogical leaders were selected as informants in 115 publications (77.2%), and chairs in 30 publications (20.1%). Some publications included different occupational groups as informants (cf. Fig. 3). Figure 2, however, shows each occupation separately. When coding the publications, more than one hit was registered per publication, as relevant.

Figure 2: Informants in empirical publications about Norwegian kindergartens (N = 149).

Figure 3 shows that in the 43 publications where assistants participated as informants, they were never the only group of informants selected. Other groups among the staff were always engaged as informants as well, together with the assistants. Usually, the assistants were relied on as informants along with kindergarten teachers. However, in one publication, assistants and chairs were selected as informants (Tkachenko, Gjæver, Bratland & Syed, 2015). All three staff groups were relied on together as informants in five publications (Børhaug, 2011; Carlsen, 2015; Nilsen, 2017; Seland, 2009; Storjord, 2008).

Figure 3: Assistants in empirical kindergarten research (N = 43).
Research design in the target studies

The main methodological approaches in the publications where assistants participated as informants were qualitative. Assistants were engaged as informants in 32 qualitative, 8 quantitative and 3 mixed-method publications. Qualitative publications mainly used interviews, while the quantitative publications in this field all used surveys. Mixed-method studies used both interviews and surveys (Børhaug, 2011; Gradovski & Løkken, 2015; Storli & Sandseter 2017).

Table 3: Methodological approach when assistants were included as informants (N = 43).

<table>
<thead>
<tr>
<th>Approach</th>
<th>Interviews</th>
<th>Observations</th>
<th>Surveys</th>
<th>Number of publications (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
<td>25</td>
<td>20</td>
<td></td>
<td>32 (74.4%)</td>
</tr>
<tr>
<td>Quantitative</td>
<td>8</td>
<td></td>
<td></td>
<td>8 (18.6%)</td>
</tr>
<tr>
<td>Mixed method</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3 (7.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>20</td>
<td>11</td>
<td>43 (100.0%)</td>
</tr>
</tbody>
</table>

Furthermore, qualitative research designs were dominant in the sample of 149 publications generated by our searches. Of this total, 120 publications (80.5%) used a qualitative design, 19 publications (12.8%) used a quantitative design and 10 publications (6.7%) used a mixed-method approach.

Finally, we investigated to what degree those conducting research on kindergartens have kindergarten teacher backgrounds themselves. We conducted web searches to investigate the background of all first authors in the sample of 149 hits. Information on academic background was found primarily through employment relationships on websites of universities and university colleges. Persons not employed in this sector were found through manual searches, book reviews and other sources which presented the authors’ academic backgrounds.

For publications with more than one author, we identified and counted the first author and not the others. Among all the publications in the frame (N = 149), 63 were written by 44 researchers, all of whom have a background as kindergarten teachers. Some of the authors have written several publications (Appendix A). Of the 43 publications that used assistants as informants, 15 of them (34.9%) were authored by 13 kindergarten teachers (Appendix B). Otherwise, assistants were informants in 28.9% of the studies in the whole sample (N = 149). This shows that when kindergarten teachers were conducting the research, there may have been a tendency to use assistants as informants to a greater degree than other researchers in the field did, but the sample is small and it is necessary to conduct more research concerning this finding.

Discussion

Main findings

In the timeframe of this review (2008–2017), assistants were never the sole informants in any of the publications. They were included as research subjects only together with
other groups of staff members, mainly kindergarten teachers/pedagogical leaders. The resulting impression is that the absence of assistants as informants, which was the basis of the MAFAL Project, persists. The MAFAL Project, which explicitly investigated and compared responsibilities and cooperation between kindergarten teachers and assistants, produced 7 hits within the specified time parameters (Løvgren, 2012; Løvgren and Gulbrandsen, 2012; Smey, 2011; Steinnes, 2014; Steinnes & Haug, 2013; Vatne, 2012; Håberg, 2015). Moreover, assistants were selected as informants in 36 additional publications; these represent 25.4% (N = 142) of the studies if the hits from the MAFAL Project are excluded.

Given that assistants are the largest occupational group among kindergarten staff, our finding that they were never the sole subjects of any research is striking. Following this observation, we argue that the representation of the various groups of staff members in Norwegian kindergarten research is skewed and, furthermore, that representation is clearly biased in favour of kindergarten teachers. As we discuss in greater detail below, this distortion may have several unfortunate consequences.

We argue that assistants are potentially very important as informants in kindergarten research because they are the occupational group which devotes the most time to direct interaction with the children (Glavind, Pade & Pade, 2000; Vassenden, Thygesen, Bayer, Alvestad & Abrahamsen, 2011). Pedagogical leaders spend less time per day with children than assistants do because several hours each work week are occupied with planning, in addition to participating in internal and external meetings (Nicolaisen, Seip & Jordfald, 2012). Overall, this leads to the impression that assistants offer continuous adult supervision for the children, while kindergarten teachers are more often absent during the day. Therefore, we argue for an enhanced appreciation of the understanding of the work and experiences of assistants, and believe that these should be studied on their own terms, not only in relation to other groups of kindergarten staff.

The under-representation of assistants as informants might express a hierarchical structure (Håberg, 2015) where assistants are perceived as relevant actors only to a limited extent. Enehaug, Gamperiene and Grimsmo (2008) point out that assistant jobs offer easy access to the labour market, with minimal education requirements and opportunities for part-time work. Perhaps assistants as a group are seen to have low status, but this is typical for kindergarten teachers as well (Kunnskapsdepartementet, 2014). In some of the publications in our study, assistants were used as informants in informal interviews in observation situations, but in formal interviews only kindergarten teachers were engaged as informants (Skreland, 2016). In another publication, the assistants, who were not informants, were more practically oriented and less pedagogically oriented than the kindergarten teachers (Eik, 2014). The under-representation of assistants might even be interpreted as an expression of an occupational conflict. In Appendix A, 21 of the 149 publications (14.1%), did not make reference to the staff’s professional backgrounds when they were used as informants. In Appendix B, 9 of the publications (N = 43) did not specify the number of

Whether kindergarten teachers work as pedagogical leaders or chairs, they have appeared to researchers to be the most interesting occupational group to use as informants. The skewed representation of assistants and kindergarten teachers might also relate to the nature of the research questions studied. Such subjects as planning and evaluation of pedagogical work are primarily the responsibility of kindergarten teachers (Kunnskapsdepartementet, 2017), who might therefore be seen as the most relevant informants on such topics. In this study, we have categorised such publications as not relevant for assistants to participate in as informants (for example, Alvestad & Sheridan, 2015). However, assistants might also have interesting views and experiences related to planning and evaluation, which might complement the picture.

Appendix A shows that in 82 of the 106 publications (77.4%) that do not have assistants as informants, the topics under investigation might be equally relevant for assistants to offer their perspectives. Topics such as what is going on in the kindergarten, play, learning, interactions, gender and migrant children (see, for example, Bae, 2012; Kalkman, 2017; Kasin & Slåtten, 2015; Nygård, 2017) might generate a more diverse set of views if assistants were also included. Various occupationally specific challenges and dilemmas might be illuminated. On the other hand, topics like leadership, planning, professional development and kindergarten teacher education (for example, Bø & Hognestad, 2014, 2015, 2017; Moen, 2017; Skjæveland et al., 2017; Vatne & Gjems, 2014) are defined in this study as typical topics that might not readily accommodate assistants as informants. Publications where the research question is specific to designated occupational groups, such as chairs (for example, Børhaug & Lotsberg, 2014; Evenstad & Becher, 2015; Kirkhaug et al., 2012) or pedagogical leaders (for example, Keilman, 2017; Knaben & Abrahamsen, 2017; Ødegård, 2012) are not defined as relevant for assistants either.

In other countries, where assistants are in the minority among the staff complement, it is less surprising that they have played a limited role as informants in kindergarten research. In a Norwegian context, however, we argue that the marked lack of assistants raises serious methodological and epistemological questions, since the largest group of staff members is understudied. We will continue this discussion by reflecting on how the skewed representation of kindergarten teachers and assistants might affect scholarly knowledge about kindergartens. In this context, it is necessary to discuss the issue of validity.

Validity

This review synthetises evidence on the degree to which assistants have been engaged as research subjects in Norwegian kindergarten research, and does not, therefore,
comment on the validity of individual publications. However, the current study enables us to reflect on the total body of research and discuss the accumulated contributions on this topic, wherein validity becomes a major issue.

Creswell and Miller (2000) have argued that validity does not refer to the data but to the inferences drawn from it. Moreover, they underlined that one key feature of validity is ‘how accurately the account represents participants’ realities of the social phenomena and is credible to them’ (Creswell & Miller, 2000, p. 124). Thus, they accentuated the importance of accurate representation of the research setting and how it is understood by actors themselves. Following this insight, we argue that the lack of assistants’ voices in Norwegian kindergarten research may negatively affect the quality and accuracy of the studies undertaken (Creswell & Miller, 2000). Furthermore, one might argue that the descriptions of data and findings will necessarily be of poorer quality in the total body of studies because the largest occupational group in the field is marginalised. From a phenomenological perspective, (Jacobsen, Tanggaard & Brinkmann, 2015) the implications of this include a likely loss of different perspectives, nuances, understandings and experiences and, furthermore, an epistemic loss of knowledge. Consequently, we argue that important gaps in kindergarten research in Norway may result from the skewed representation of the staff. It is not sufficient to build the knowledge of kindergarten almost exclusively on data from the smallest occupational group.

In their highly influential article on validity in qualitative research, Creswell and Miller (2000) described nine validity procedures. Since our focus primarily concerns the total body of evidence and not individual studies, we will narrow the discussion down to three procedures: member checking, thick description and triangulation (Creswell & Miller, 2000). First, Creswell and Miller emphasise member checking as ‘the most crucial technique for establishing credibility’ (2000, 127). This procedure entails presenting data and interpretations to the participants in the study ‘so that they can confirm the credibility of the information and the narrative account’ (2000, 127). As mentioned above, the main results of this study indicate that Norwegian kindergarten research in our time frame (2008–2017) does not adequately represent the population working in Norwegian kindergartens; the largest occupational group has only to a limited degree been included as research subjects. Moreover, we found evidence of conflation in 21 publications (14.1%), where informants were coded simply as ‘staff’. These publications merged the different occupational groups under the term ‘staff’ without distinguishing between assistants, kindergarten teachers and chairs. Conflation increases the possibility of bias and reduces the accuracy of inferences. Using the term ‘staff’ might distort the presentation of study results and disguise eventual findings that could show different occupational groups as having different roles and performing their tasks in different ways. For example, by designating informants explicitly as either assistants or kindergarten teachers, significant differences between kindergarten teachers’ and assistants’ work might appear. Håberg (2015) distinguished between different occupational groups, including in her study both
visible practical work and invisible work, such as planning and reflection. Consequently, clear differences between occupational groups could emerge. This contrasts with the claim that kindergarten teachers and assistants in the Norwegian context are doing the same kind of work in an organisation characterised by flat structure (Aasen, 2010; Boe, 2011; Nørregård-Nielsen, 2006). We conclude this paragraph by claiming that the lack of assistants in Norwegian kindergarten research obviously infringes on their involvement in member checking.

Second, Creswell and Miller (2000) also accentuated the role of thick description as a validity procedure. Thick description involves contextualising the people and sites studied, giving detailed, deep and dense descriptions of the setting, participants and themes. The purpose of this approach is to create verisimilitude, ‘to produce for the readers a sense that they have experienced, or could experience, the events being described in a study’ (2000, p. 129). Creswell and Miller argued that thick descriptions ‘enable readers to make decisions about the applicability of the findings to other settings or similar contexts’ (2000, p. 129). Following this insight, we emphasise that the representation of Norwegian kindergarten staff we have documented is evidently at odds with the ideal of thick description. Furthermore, we argue that this skewed representation may threaten the transferability or generalisability of the results.

Third, Creswell and Miller have emphasised triangulation as another procedure to enhance validity. They described triangulation as ‘a search for convergence among multiple and different sources of information to form themes or categories in a study’ (2000, p. 126). They underlined the use of multiple methods as a technique to provide more valid narrative accounts. Furthermore, triangulation is the rationale for mixed-method research designs: such designs enable complex and multifaceted investigations. We found that only 7% of the studies investigating the work of assistants used mixed-method designs. Meanwhile, in line with several earlier Scandinavian research reviews, our review has shown qualitative designs to represent the most common approach in kindergarten research (Bondebjerg et al., 2019; Bondebjerg et al., 2018; Bondebjerg et al., 2017; Højen-Sørensen et al., 2016; Wendt & Jørgensen, 2015). For example, the latest review (Bondebjerg et al., 2019) dealt with the year 2017 and found that 79% of all studies (N = 121) had a qualitative design. Our study of assistants as informants arrived at the same tendency (80.5%, N = 149).

More empirical knowledge is needed about the dynamics of kindergartens and their context, along with more sophisticated research designs. The role of kindergarten in Norway has changed, from being an opportunity experienced by some of the children from the age of one until they start school at six (60% in 2000) to becoming a normal and nearly universal element of early childhood (92% in 2018; SSB, 2019). This high percentage of participants has been highlighted from a policy perspective as an opportunity to give children who are not enjoying stimulating and supporting home environments experiences that promote learning and development (Kunnskapsdepartementet, 2019). The kindergarten’s role – to compensate for social inequality and give all children an equal chance when starting school – depends
on a high-quality learning environment (Aukrust & Rydland, 2009); therefore, this knowledge base is of great importance.

As shown above, a clear majority of Norwegian kindergarten research uses qualitative methods. In this research, the selected groups of respondents are typically small and strategic, and researchers emphasise contextualisation and focus on unique characteristics (Karpatschof, 2015). However, qualitative studies do not offer the opportunity to generalise or point to causality in ways that could paint a broader picture of the kindergarten context (2015). Qualitative research is more vulnerable to sampling error, that is, ‘error in the findings deriving from research due to the differences between a sample and the population from which it is selected’ (Bryman, 2008, p. 168). The predominant use of qualitative approaches in kindergarten research amounts to adding many small pieces to a puzzle. The problem is that these pieces might, to a large extent, be placed on top of each other, while not contributing to completing the picture. In closing, many of the publications that included assistants as informants have had methodological limitations. Three or fewer assistants were consulted as informants in eight publications, a very small sample (cf. Appendix B). Moreover, nine of the publications did not quantify the number of assistants included as research subjects (cf. Appendix B); the latter methodological choice threatens the transparency of the research process.

**Representation and research**

Our study has shown that kindergarten teachers are represented both as the main group of informants for kindergarten studies and also as a large proportion of the researchers in this field. A central finding is that 42.9% of the 149 publications were written by authors or first authors who were educated as kindergarten teachers. On the one hand, researching one’s own occupation may have benefits in terms of increased understanding and access to the field of study (Repstad, 2002). On the other hand, challenges may arise from blind spots, including identifying too much with informants, which may result in problems sustaining necessary analytical distance (Leer-Salvesen, 2016). In his meta-evaluation of Swedish preschool literature, Haug (2003) found that the research problems examined were strongly affected by the researchers’ own experiences, and that the dissertations made in the investigated period (1998–2001) were all conducted by persons who had previously worked in a kindergarten context themselves. Haug claimed that this body of research ‘is marked by a clear solidarity with the preschool’ (2003, p. 19). Almost all of these dissertations (N = 15) were qualitative studies that involved ‘very few institutions, very few staff and children’ (2003, p. 7). This strong connection to the kindergarten context may possibly influence the researchers’ selection of informants. Furthermore, researching one’s own context might reinforce confirmation bias and lead to a less critical view of kindergarten practices.

The kindergarten teachers’ dual role, representing the field of kindergarten research while, to some extent, doing the research themselves, stands in contrast to the...
invisibility of assistants in this same research context. This invisibility is also noticeable in key policy documents. Neither The Act on Day Care Institutions (Kunnskapsdepartementet, 2005) nor the Framework Plan for Kindergartens (Kunnskapsdepartementet, 2017) contains the term 'assistant,’ while the term ‘staff’ is used frequently. This can be interpreted as recognising no distinction between chairs, pedagogical leaders and assistants in their work with children. Meanwhile, staff working as pedagogical leaders and chairs are emphasised in their distinctive roles as having the main responsibility for planning and assessing children’s well-being, learning and development (Kunnskapsdepartementet, 2017).

However, although the term ‘assistant’ is excluded from legal and framework documents, this does not mean that assistants ought to be excluded from research. According to Engelsen (2000), research in this domain carries the important function of analysing and problematising educational policy rhetoric so that one does not uncritically support the way concepts are used in legislation and curricula. Vallberg Roth (2013) has claimed that the absence of terms pertaining to staff in curricula and other policy documents represents a form of exclusion. When assistants are so seldom engaged as informants in kindergarten research, this occupational group becomes nearly invisible. Meanwhile, kindergarten teachers working as pedagogical leaders or chairs are both explicitly mentioned in policymaking in this field and are relied on as the main informants in kindergarten research.

Conclusion

In this study, the research question, To what extent have assistants been selected as informants in empirical kindergarten research in Norway, and what methodological challenges arise from this?, has been investigated in at least three ways. First, the most recent developments on this topic have been covered by analysing earlier research overviews concerning Norwegian kindergarten research. Second, a firm foundation was built for analysis by performing a critical review of the available literature and presenting findings in quantitative form (Tables 1–3, Figures 1–3). Third, the research question has been investigated by interpreting and elaborating the methodological implications of the study’s results.

Since the largest occupational group in kindergartens (assistants) has never been the sole subject of research and they are seldom even included as informants, this study’s main finding is that important gaps have emerged in the body of knowledge about Norwegian kindergartens. The perspectives and experiences of assistants are represented in kindergarten research only to a very limited extent; they are generally marginalised and invisible. It is not sufficient to build collective knowledge of kindergarten practices while relying almost exclusively on data from the smallest occupational group. We argue that researchers’ choices regarding sampling affect the validity and transferability of their studies. Furthermore, sample selection involves deciding what to investigate and whose stories are to be heard.
When the kindergarten is the object of the research, choosing who will represent the institution is a question of the utmost importance. It is important for politicians and policymakers, who establish the framework for the institution, and also for staff, parents and other stakeholders, to gain access to valid knowledge about what is going on in this central institution in our society. In recent decades, international organisations have investigated and compared different forms of daycare (for example, kindergartens) for preschool-aged children in various European nations. For both the OECD (1999, 2001, 2006, 2012, 2013) and the EU, a major rationale for these interventions is to support the opportunities for lifelong learning and social equality for children. An important finding in the OECD studies is the connection between high-quality kindergarten environments and the competence of staff to interact, play, stimulate and take care of the children. From an ethical point of view, therefore, it is highly relevant to use staff as key informants in kindergarten research. However, to obtain valid knowledge about the kindergarten as an institution, we argue that it is necessary for all groups of staff members to be engaged in the research process. Chairs, kindergarten teachers and assistants all serve important functions and have experiences and perspectives worth investigating.

We need to highlight several limitations of our study. Our decisions regarding search terms and databases may have inadvertently excluded some publications, which could have affected our results. The choice of languages (Norwegian, English, Swedish, and Danish) might, to a lesser degree, have been a limiting factor, because research in the Norwegian context is seldom published in other languages. Furthermore, our study was done in a Norwegian context. It may, however, be of interest to investigate research on staff groups as informants in other countries as well.

This study was motivated by the lack of information about assistants as informants in kindergarten research and an ambition to investigate and discuss this aspect of the field. We conclude that more research on assistants’ roles in kindergartens is clearly warranted. We want to inspire upcoming research efforts to become aware of the challenges that result when assistants are not included in research designs. Both from a methodological and an ethical perspective, it is necessary that assistants take part in kindergarten research to a much greater extent than before. We contend that assistants should be treated as legitimate and relevant research subjects, independent of the other occupational groups in the kindergarten context.

References
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Appendix A and B

Appendix A and Appendix B are not included in this article, but they are available online on ResearchGate.

Appendix A


Appendix B