Norwegian Primary School Teachers' Pedagogical Practices for Food and Health Meals and School Lunches

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Abstract

The aim of this article is to explore teachers' pedagogical practices in Food and Health (FH) meals and school lunches in Norwegian primary schools. This is a qualitative case study of three schools in Western Norway. The data were collected from observations of sixth-grade FH education, school lunches, and individual interviews with teachers and head teachers. Three categories were identified for institutional foodscapes: 1) organisational, 2) physical, and 3) social space. These foodscapes work to explain how teachers' pedagogical practices are affected differently during the two meals. A clear difference was observed between teachers' pedagogical practices in the FH meal and the school lunch. In the FH meal, the teachers took on different roles where the teacher communicated socially with the pupils and educated them. During the school lunch, the role of the teacher is observed to be more passive (or withdrawn), where the teachers mainly addressed the students in order to correct behaviour.

Conclusion: The results emphasise that a clearer policy for meals in schools should be established where attention is paid to the teacher's role as a pedagogue during meals in facilitating the pupils' development of health-promoting eating habits and social competence during meals.

KEYWORDS: FOOD AND HEALTH MEAL; HOME ECONOMICS; SCHOOL LUNCH; FOODSCAPE; TEACHER PRACTICES

Introduction

In the Norwegian primary school system, children and youth come into contact with food and meals in different contexts, such as Food and Health as school subjects as well as school lunches. A meal can be explained as a social situation regulated by certain rules and behaviours (Mäkelä, 2009), and mealtimes are recognised as cultural opportunities for social participation through communicative practices (Ochs & Shohet, 2006). Nielsen and Høyrup (2012) used the term a *school's food and meal culture* as a unifying concept for the actions and values associated with food and food intake in schools. According to Mikkelsen (2011), there is a growing interest in studying the influence of the food environment and understanding how people, spaces and food interact. Therefore, in this article, we use Mikkelsen's (2011) concept of *foodscape* to investigate the school lunch and the meal in the course subject titled Food and Health.

In school, pupils experience school meals every day, unlike the meals that are part of the sixth grade Food and Health class which they experience occasionally (usually once a week). The Norwegian subject titled *Food and Health* can be compared to the subject *Home Economics* in an international context (Ask et al., 2020). When referring to meals as a part of *Food and Health*, the abbreviation

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FH meals is used while the term *school lunch* refers to the meal pupils eat during their lunch breaks. The FH meal is included as part of the teaching of food and health and is regulated by the Food and Health curriculum (Ministry of Education and Research, 2006). The school lunch follows national guidelines established for food and meals in schools (Norwegian Directorate of Health, 2015). The FH curriculum and the national guidelines for food and meals in schools has varying legal significance; the former is a legal regulation, whereas the latter are recommended guidelines. However, both domains give teachers great autonomy in carrying out the two meals. In 2020, a new curriculum (Directorate for Education and Training, 2020) was introduced, but this study was carried out under the Ministry of Education and Research curriculum and guidelines (Ministry of Education and Research, 2006).

The Food and Health school subject involves teaching pupils about the opportunity to choose and critically reflect on food and meals in order to acquire knowledge about what promotes good eating habits and good health (Ministry of Education and Research, 2006). Meals have always been an important component of the class. The subject of Food and Health is also an important arena for developing social skills in collaboration, experimentation, and development of critical judgement (Ministry of Education and Research, 2006), for example, in meals.

Previous research on FH largely focuses on teaching goals such as organisation, pedagogical expertise, and practical work, such as teaching about cooking (Ask et al., 2020; Beinert, Palojoki, et al., 2020; Beinert, Palojoki,, et al., 2020; Gisslevik et al., 2016; Lindblom, et al., 2016). Oljans et al. (2020) discuss FH teachers' educational choices regarding the educational content of food and health. They focus on social and cultural aspects, such as the interaction and participation of teachers and pupils to create a positive atmosphere of togetherness and relaxation during meals (Oljans et al., 2020). They point out that meals emphasise social values, and thus, norms and values in relation to food (Oljans et al., 2020).

School lunches in Norway's primary schools are composed of food items prepared and brought from home and consumed in the classroom in the middle of the day. Further, schools in Norway are required to have routines for government-subsidised subscription schemes that provide pupils with fruit and milk during school (Norwegian Directorate of Health, 2015). The national guidelines for food and meals at school describe lunches as opportunities for "promoting social togetherness and being physically adapted to develop pupils' social skills and that food brought from home should be in line with national dietary recommendations" (Norwegian Directorate of Health, 2015, p. 15).

In recent years, there has been growing research interest in the social and cultural perspectives of school lunches. For instance, Lalli (2020) investigated teaching staff's perceptions of social learning with a specific focus on the culture of school mealtimes. The teachers related social learning primarily to rules of conduct during meals and did not take into account that pupils could develop social skills through observational learning (Bandura & Walters, 1963; Lalli, 2020). Fossgard et al. (2019) focused on lunch breaks from the pupils' perspectives and found that several of the pupils experienced that the lunch break was governed by the teachers' agendas; thus, they had limited opportunities to create their own social spaces.

Research indicates that teachers play a key role in pupils' learning processes in school, such as how school meals are conducted (Lindblom et al., 2016; Mita et al., 2015). Teachers' perceptions of their own pedagogical teaching processes in school can be related to Goodlad's description of the technical-academic aspect of school education (Goodlad, 1979). Goodlad explains the technical-academic aspect as an interpretive knowledge of the curriculum content, that is, the teachers' interpretive knowledge of the content of the FH curriculum (Ministry of Education and Research, 2006) and the national guidelines for school meals (Norwegian Directorate of Health, 2015) and how they are applied based on pedagogical practice during meals.

To our knowledge, the teachers' roles during the two meals has not been compared; thus, this study aims to contribute to a better understanding of how teachers perceive and perform their tasks in the two meals. This will be important knowledge to help understand why teachers practice different pedagogical practices during the two meals.

The aim of this article is to explore teachers' pedagogical practices in the FH meal and school lunch in Norwegian primary schools within the school's foodscape.

Conceptual framework

Institutional foodscape

The concept of foodscape has been used as a tool to describe food and meal environments in institutional eating events in schools. Researchers perceive foodscapes as "the places and contexts where children eat and come into contact with food and the meanings and associations connected to them" (Johansson et al., 2009, p. 30). Mikkelsen (2011) emphasises how food and meals in schools are affected by physical and structural conditions. In accordance with Mikkelsen, institutional foodscapes can thus be defined as "the organisational, physical, and sociocultural spaces in which pupils and teachers encounter meals, food, and food-related issues" (2011, p. 210). Within Mikkelsen's (2011) definition of foodscape, we explore the FH meal and the school lunch with a focus on teachers' pedagogical practices during meals.

The organisational space refers to routines that make up different structures in meals, such as the time meals are eaten, what is eaten, and with whom (Brembeck et al., 2013). The FH meal and the school lunch have different structures for when and for how long pupils eat, what they eat, and the dining areas (which are all different for the two meals). The head teacher is responsible for how school subjects and meals, such as school lunches, are organised in the school, and also has the authority to plan various school subjects and mealtimes, such as the school lunch in the teachers' timetables. The teachers thus become responsible for how the meals are influenced by their pedagogical practices during meals. The physical space refers to the classroom and the school kitchen with tables and chairs, the way the food is served, and the food's physical appearance (Sobal & Wansink, 2007). The FH classroom is usually equipped with kitchen units and associated dining areas, while the regular classroom is usually equipped with desks according to the number of pupils in the class. The social space refers to the social relationships that occur within the classroom or dining room, and during meals between pupils or between teachers and pupils. The social space is often associated with good food experiences and pleasant surroundings during meals (Berggren et al., 2020).

Teachers' roles

Vangsnes and Økland (2018) believe that teachers play different roles, namely, positioning, supportive, and distal roles. The positioning teacher is the active teacher, while the supportive teacher takes a more guidance-oriented approach. Further, the distal teacher is physically present, but not mentally and verbally present (Vangsnes & Økland, 2018). Vangsnes and Økland also use the terms intervening teachers and directing teachers (Vangsnes & Økland, 2015, 2017) to explain different positioning roles. Teachers' different roles are also highlighted by Osowski et al. (2013) who investigated how teachers engaged with the pupils during mealtimes. They refer to the school meal as a teaching occasion (the pedagogical meal) with an emphasis on teachers' interactions with pupils and thus identified three types of teachers: sociable, educational, and evasive (Osowski et al., 2013). They found that the sociable teacher was active in their interaction with pupils by talking and listening, and turned the school lunch into a social occasion. The educational teacher explained, applied rules, and rewarded good behaviour, while the evasive teacher was quite passive and did not become involved socially during the meal (Osowski et al., 2013).

Frame factor theory

Frame factor theory (Keating, 2018) can also be connected to school meals. For example, external frame systems describe the overall framework at a school level, such as the FH curriculum (Ministry of Education and Research, 2006) and the national guidelines for school meals (Norwegian Directorate of Health, 2015), which describe, among other things, the physical frame in which the meals are carried out, and the teachers' practice during meals. In this article, the external framework can be understood as what Mikkelsen (2011) describes as the organisation's space while the internal framework revolves around the physical and social space in the school's foodscape.

Method

Study design, participant selection and criteria

This study employed a qualitative comparative case study (Yin, 2017). This methodology enables researchers to conduct a more in-depth investigation of how people interact within different contexts—in this case, the FH meals and school lunches. For this study, we strategically selected three schools from Western Norway that offer one or more sixth-grade FH subjects.

This study was approved by the Norwegian Centre for Research Data. Participants received written information about the study before it began and provided verbal consent to participate and have their interviews recorded.

Data

One class from each of the three schools participated in the study and the data were obtained in each of the three classes by observing two FH lessons, conducting one-to-one interviews with FH-teachers, and observing one school lunch in each class. The head teacher of each school was additionally interviewed.

Observations

Two structured observation forms (Creswell, 2013) were prepared in order to observe the teacher's role during the two different meals. The focus in both forms was on the teachers' interaction role with the pupils, whether the teachers had a dialogue with the pupils, what the dialogue was about, and whether the teachers provided social interaction between the pupils during the meals. The FH meal observations took place in the schools' teaching kitchens, and school lunch observations took place in classrooms where pupils usually eat their lunches. The same pupils and classes were observed for each meal.

Interviews

Semi-structured interviews were prepared and utilized during the interviews with the teachers and head teachers (Creswell, 2013). Questions for the teachers related to how they facilitated pupils' interactions and learning during the FH meals and school lunches, along with their familiarity with the curriculum and official guidelines. The head teachers were asked about their knowledge of the curriculum and national guidelines. In addition, they were asked about what factors influenced the meals such as teaching responsibility, conducting the school lunch, and financial frames. These semi-structured interview guides were piloted at a primary school in Western Norway prior to the study itself, and some adjustments were made in the formulation of the questions to clarify the purpose and efficacy of the questions.

Data collection

The data were collected based on the observations and interviews conducted between April and June 2016 in one class at three primary schools in Western Norway. Data collection followed the same procedure for all three schools. Two separate visits were made to each school, and one sixth-grade FH meal was observed during each visit. Then, another visit was paid to each school for the teacher interviews. A fourth visit was paid to each school to interview the head teachers. Finally, a fifth visit was made to observe the school lunches. All observations were conducted by the first author as non-participatory observations (Creswell, 2013), and complete lessons and school lunches were observed. The data were then anonymised (references are made to School/Head Teacher/Teachers as A, B, and C, respectively).

Analysis

The first author transcribed all the interviews and observation notes. The data were then validated by the author's colleagues. During the processing of the data, Mikkelsen's (2011) concepts of foodscapes (organisational, physical, and social spaces) were useful in the work of coding and categorising. The data were read and encoded within the three aforementioned categories. Thereafter, the data were systematically reviewed by marking meaningful elements in the material. This work was repeated several times to ensure that the data were not coded incorrectly, as some

meaningful elements, such as time, could belong to several categories. Finally, similarities and differences between the different cases were examined.

Presentation of the cases

All of the teachers were women with a qualified teacher status (QTS). Teacher A also had 15 ECTS credits in Food and Health as part of her general teacher qualifications. Teacher C was one of the three with the longest teaching experience—over 30 years—in the subject. Teachers A and B had more teaching experience in subjects other than food and health. In food and health, they had five and three years of experience, respectively. Of the head teachers, one was a woman, and the other two were men.

The FH subject took place one time per week, while the school lunch was carried out every day in the middle of the school day. At School A, there were 23 pupils in the classroom during both meals. At School B, there were 28 pupils, of which eight were present in the FH meal, while the whole group ate lunch together in the lunch classroom. In School C, there were a total of 18 pupils, of which eight were present in the FH meal, while the whole group ate lunch together in the lunch classroom.

Results

We have compiled the results into the three categories established by Mikkelsen's (2011) concept of foodscape: the organisational space, the physical space, and the social space.

Organisational space

The organisational space refers to how routines, such as school policy tasks, scheduling, and budgeting, affects teachers' pedagogical practices during meals.

In the interviews, the head teachers felt that it was not part of their task to acquaint themselves with or to fulfil a need for insight into school policy documents, such as the curriculum content in the FH subject and the national guidelines for food and meals in schools. Their tasks were mainly composed of planning structural frameworks, such as scheduling teaching in the FH subject, scheduling lunch times, organising pupil groups, and planning budgetary frameworks. The head teachers scheduled teaching for the FH subject once a week while the school lunch was scheduled every day in the middle of the school day. The head teachers said their task was to organise the FH subject and the school lunch in such a way that the same teacher was present with the same group of pupils as often as possible. Furthermore, the head teachers organised teaching in the FH subject and the school lunch differently. The school lunch was organised similarly at the three schools by having the entire group of pupils present at the same time in the room during lunch. While School A organised the FH subject by having the whole group of pupils present at the same time in the room, Schools B and C divided the FH subject pupils into smaller groups (of eight pupils).

Regarding the pedagogical aspect of carrying out the FH meals and the school lunch, the head teachers clarified that they left all responsibility to the teachers and believed it was the teachers' responsibility to ensure that the two meals were in line with school policy documents. As mentioned by Head Teacher A: "I leave all responsibility to the teacher to decide the pedagogical content of the FH subject and the school lunch". Furthermore, the teachers confirmed that the responsibility for pedagogical content during meals was left to them. The teachers viewed their pedagogical practices as different during the two meals. They explained that the differences between the two meals were about the content and the practical tasks they had to complete during the two meals. The meal in the FH subject was part of the subject, and therefore, entailed considerable planning in advance of the actual training hours. Teacher A was one of the three teachers who had fellow colleagues also teaching the FH subject, yet she said this about collaboration: "We do not collaborate while planning the pedagogical content of the training lessons; we do it individually". All the teachers claimed that they took the curriculum into account, but that it was not a decisive component for their pedagogical choices. The teachers pointed out that the meals were only considered to a limited extent in the planning of training lessons. For example, Teacher B noted that "The meal is part of the subject".

The teachers did not perceive the school lunch as having any pedagogical approach, and they said that the content during the lunch was more practically oriented, such as arranging the lunch with sufficient time for the pupils to clear their desks and eat their packed lunches. The teachers also

claimed that they used the lunch time for their own work tasks. Teacher C emphasised that the lunch break could also be a break for her: "Sometimes it can be good to have a short break from an otherwise hectic teaching situation". None of the teachers referred to the lunch guidelines for school meals when explaining how they carried out the lunch in practice.

The observations confirmed the teachers' statements about the differences between their pedagogical practices during meals. The meal in the FH subject was influenced by the teacher's pedagogical content choice, such as the recipe. The recipe became decisive for the pupil groups' methodical cooking techniques and in this regard, the teacher's task was to follow-up with the pupils in their learning progress before, during, and after the meal. In the school lunch, it would appear as if the teacher's tasks were characterised by a specific format. The teacher instructed the pupils to clear their desks and take out their packed lunches. The teachers also ensured that the dining environment was calm throughout by correcting fidgety pupils and, finally, the teacher made sure that the pupils cleared sandwich papers and milk cartons from their desks before they could go out and take their break. Teacher A corrected pupils' assignments, while Teachers B and C chose to watch a program on the Smart Board with the pupils during lunch.

In the interviews, the teachers mentioned that the time they had available had influenced how they carried out the school lunch more so than when they were instructing the FH meal. The teachers noted that the time allotted to the school lunch was limited, and that there were many tasks to be performed within this time, such as the pupils having to clear away school items, taking out the packed lunch, and cleaning the desks after they had eaten. In contrast, the FH meal was part of the teaching hours in the FH subject, and the teachers could thus adapt the meals to suit the available time. Table 2 shows an overview of the teachers' active time during the FH meal, the teachers' active time during the school lunch, and the allocated time in the timetable for the FH and school lunches.

Table 1   **Overview of Time Spent on FH Meals and School Lunches as Categorised by Meal Time and Scheduled Teaching Time for Each**

School	Observation 1 FH meal		Observation 2 FH meal		Observation 3 School lunch	
	During meal time (min)	Scheduled teaching time (min)	During meal time (min)	Scheduled teaching time (min)	During lunch time (min)	Scheduled time for lunch (min)
A	22	129	40	129	18	20
B	19	119	21	119	18	15
C	17	128	17	128	10	15

Table 1 shows that the duration of school lunch at all three schools was shorter than the recommended 20 minutes (Norwegian Directorate of Health, 2015), and that less time was spent on the school lunch compared to the time spent on the FH meal. School C had the least amount of time for both FH meals and school lunches. School B had approximately the same duration for FH meals and school lunches. In School A, Teacher A extended the duration of the FH meal in one of the observations as pupils had to prepare desserts (ice cream) during the meal time. This showed that FH meals allowed for more individual choices and provided teachers with the freedom to organise the time spent on different teaching activities according to the total amount of teaching time. These types of adjustments did not apply for the school lunch. If the teacher were to extend the time during lunch, the teaching time or the pupils' break time would be reduced. Teacher A explained that it was difficult to adjust the lunch break because the pupils would not be very happy with a reduction of the longest break during the school day. Teacher A also pointed out that, for instance, the teachers' inspection of the playground during the break also affected how lunch was conducted because the teacher had to end the lunch break earlier to prepare for the teacher's playground duty.

The head teachers reported that they were responsible for preparing a budget for financial expenses for use in the FH subject. According to the teachers, the head teachers influenced the purchasing of ingredients for use in the FH subject, and all of them expressed satisfaction with the allocated budget. During the school lunch, the teachers did not refer to the school's financial obligations since

the meal was based on food the pupils brought with them. In school lunches, the head teachers' task was to administer subscription schemes for milk, fruit, and cold food (School B).

Physical space

The physical space refers to the design of the classrooms' dining areas and available equipment and how it affects the teachers' pedagogical practice during meals.

The observations in the classrooms where the pupils ate the FH meal and the school lunch showed that the pupils' dining areas had different layouts. In the FH classroom, the pupils sat in groups of five to six pupils and the dining area was organised into four groups of benches and tables. In the classroom where the pupils ate lunch, the pupils sat on chairs with an accompanying desk and sat in pairs or separately at desks. The different layouts for the FH and the school lunch classroom dining areas are shown in Figures 1 and 2.

Figure 1   Classroom Kitchen Units and Dining Areas for FH Meals (A, B, and C left to right)

School A and B   **School C**
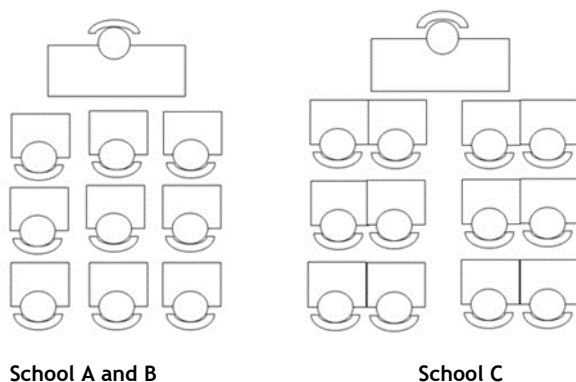
Figure 2   Classroom Layout for the School Lunch

The physical layout of the dining areas in the two classrooms, such as that in the FH meal where the pupils sat in groups as opposed to in the lunchroom where the pupils sat separately or in pairs, may be one of the factors that influenced the teachers' pedagogical practice during the meals.

In the FH meal, Teachers A and C took part in the meals by sitting down to eat with a selected group of pupils throughout the meal. Teacher A also moved around to each group in the room and tasted their food. During the school lunch, the teachers did not take part in lunch. Further, the teachers did not influence the pupils with togetherness because the teacher sat behind their desk during the whole lunch and did not eat lunch in the classroom. The physical layout did not have a dining area, and as such pupils ate at their desks. This design may have also influenced the teachers' pedagogical practice in how the teachers communicated with the pupils regarding unwanted behaviour during the meals. During the FH meal, Teacher A largely talked to the pupils she sat down with about behaviour, but she also moved around to curb unwanted behaviour among the other groups of pupils in the room.

When asked about why she was upset about having a large group of pupils together, she explained the following:

> Up to six pupils sit on the same bench, meaning that they sit very close to each other because the benches are too small for so many. The pupils thus sit bumping and nudging each other throughout the meal which causes a lot of unrest.

Teacher A said that with fewer pupils in the group, she could better initiate social or subject-related conversations with the pupils during the meal. In contrast, with larger groups, a considerable amount of time was spent calming unrest and reprimanding unwanted behaviour between groups of pupils. Teachers B and C reported that they perceived the dining areas as acceptable for the group of pupils in the FH meals because the pupils' behaviour during the meals was not greatly affected by the size and number of benches or chairs.

During the school lunch, each teacher talked to the entire class of pupils about unwanted behaviour. The teacher sat behind the teacher's desk, which led to the teacher speaking louder so that all the pupils in the room could hear what the teacher said. It could also seem that the teacher influenced the lunch by reprimanding the behaviour of some pupils, particularly those who sat closest to the teacher in the room, while other pupils continued to talk quietly together, such as the pupils of Teacher C. These pupils sat in pairs and could interact if they spoke quietly and did not disturb the whole group of pupils.

All teachers had access to a blackboard and a Smart Board in the classroom, where pupils ate the school lunch. In the FH room, Teachers A and B also had Smart Boards, in contrast to Teacher C. The three teachers explained that neither the blackboard nor the Smart Board was used in the FH subject, especially during meals, and thus it did not affect their pedagogical practice during the meals. Teacher A said, "Sometimes I use the Smart Board when teaching a theory in the FH subject, but never during the meal". During the school lunch, all teachers said that they used the classroom Smart Board and believed that using this tool affected the pupils' behaviour, in which they experienced a more calm dining environment, something the observations also confirmed.

Social space

The social space refers to how the interaction, dialogue, and table manners affect teachers' pedagogical practice during meals.

The observations of the FH meals showed differences between the teachers' interactions with the pupils during the meal. Teacher A believed that her interaction with the pupils affected the meal. Further, Teacher A said that she had an influence on the meal since she sat at random and ate with a group of pupils. She explained that her random placement throughout the whole meal affected her relationship with the pupils by allowing her to engage in conversations with several groups of pupils during each lesson. On the other hand, Teacher C chose to sit and eat with the same group of pupils throughout the whole meal, but alternated between the groups in each lesson:

> In this way, I have more time for a conversation with the group and can ask questions about the meals or about the pupils' activities after school. For me, it is a way to show care for the pupils and it is an important task for me as a teacher, so that the pupils feel that they have a social affiliation.

Teacher B did not influence the meal. She said in her interview that she often used the time while the pupils ate to clean up or to put food away. These were tasks she had to perform before leaving the classroom in order to reach the next class.

Teachers A and C's conversations with their pupils during the meal also depended on whether the teachers' conversations had a pedagogical aspect, such as choice of ingredients and taste experiences or whether the conversations had a social aspect related to the pupils' hobbies, such as handball and football (Teachers A and C) and playing instruments, such as guitar (Teacher C). In Teachers A and C's conversations with their pupils about pedagogical knowledge, it seemed that the teachers created a high level of involvement in the subject with their questions related to pizza (A) and pancakes (C). The pupils were engaged and showed curiosity and interest in the questions. This led to topic-related discussions between the teacher and the pupils, and between the pupils, and everyone expressed their own opinions, such as "I like mushrooms", "I like peppers", and "I think pineapple is the best on pizza" (A). Teacher C encouraged the pupils to express their own taste preferences, such as what they associated with the smell of pancakes, bacon, or blueberry jam. These conversations continued

during the meal, and Teacher C understood and accommodated the conversations with the pupils about their preferences, but she also expressed her own preferences and traditions for eating pancakes, while the pupils showed great satisfaction in eating pancakes with their own choice of accompaniment. Teacher B also asked the pupils one question in the pizza meal: "Which pizza do you think is best, homemade pizza or purchased pizza?" It seemed that the question Teacher B asked the pupils had little effect on them as they continued talking to each other about their taste preferences related to pizza while the teacher continued with her own work, such as cleaning up and putting food away in the kitchen.

Teachers A and C did not manage to engage the pupils as much with their pedagogical questions in the meals where they ate Asian chicken (A) and fish balls (C). The pupils showed little interest in answering the teachers' questions, so the teachers withdrew from the pupil conversations and left it to the pupils to talk and discuss their own chosen hobbies. Teacher C was one of the two teachers who sometimes confirmed the pupils' statements by answering "yes", while teacher A smiled and nodded when a pupil spoke.

During the school lunch, the observations showed that the teachers' pedagogical practice was influenced by the teachers' own perceptions of performing the work tasks, such as correcting student tasks. Additionally, the teachers felt that showing movies while the students ate was appropriate. The teachers had different views on the use of the Smart Board. Teacher A, for example, who used this time for her own work, explained:

> I use the lunch break to finish work deadlines because of the heavy workload. [School lunch] is my opportunity to complete essential tasks while the pupils watch YouTube. Pupils get to choose what music videos they want to watch, but they do not watch music videos every day. We have rules for selecting activities (i.e., deciding what to watch) every weekday.

Teacher B explained that by using the Smart Board during lunch, it was easier to achieve a calmer dining environment and the pupils would thus experience the break as a quiet period. In addition, she pointed out that Smart Boards can also provide a learning opportunity. Teacher B explained:

> My experience is that if the pupils watch films and television, they eat peacefully and quietly. If I read to them, for example, or if the pupils sit and talk freely among themselves, they are more unsettled. That is not pleasant, and the pupils have a break immediately afterwards, so they have the chance to talk a lot together.

Teacher B received questions from the pupils related to the topic of the program that was shown on the Smart Board. It seemed that Teacher B was not very interested in the questions or did not want to be involved in them. She answered the pupils with a yes/no answer, so there was no further communication on the topic.

Teacher C claimed that it was the pupils' wish to watch programs, such as news for children, on the Smart Board during lunch. The observation showed great variation among the pupils as to whether they followed the news or whether they talked quietly with the pupils sitting next to them.

In the interviews with the teachers, the individual teachers pointed out that they had an expectation of the pupils to display good table manners during the FH meal and that during the school lunch, they expected pupils to sit at their desks without disturbing their fellow pupils. Teachers A and C influenced the FH meal by communicating norms related to food and meals as an expression of culture and social belonging. During the school lunch, the teachers explained that their communication about reprimanding unwanted behaviour was not related to food but to the pupils, as presented by Teachers A and B, respectively.

> Now you must behave, not sit there and mess with the food. Eat well, it is not pleasant for those you sit with to watch (FH meal: Teacher A).

> Hush, now you have to be quiet, there's much too much noise and you have to remember to eat (School lunch: Teacher B).

Discussion

The aim of this article was to explore teachers' pedagogical practices in the FH meal and school lunch in Norwegian primary schools within the school's foodscape. Our findings showed a clear difference between teachers' pedagogical practices in the FH meal and the school lunch. In the FH meal, the teachers took on two roles in which the teacher interacted socially with the pupils or

educated the pupils. During the school lunch, the teachers' role can be described as more passive (or withdrawn), where the teachers mainly addressed the pupils when correcting their behaviour.

The results show that the teacher is given a larger room for which to manoeuvre through (regarding the organisational, physical, and social space) in the FH meal compared to during the school lunch. The teachers have greater subject-related influence, greater room to manoeuvre in relation to time, and more influence on financial resources for the FH meal compared to the school lunch. The design of the dining area in the FH meal and the situation where everyone eats the same food that is made at the school facility creates a more varied teacher role. That the teachers varied between two teacher roles (in the FH meal and school lunch) can be interpreted as the teachers perceiving the FH meal as a pedagogical responsibility and thus exerted greater subject-related influence in contrast to the school lunch. The teachers perceived carrying out the school lunch as a supervisory task and the dialogue during the school lunch was more about correcting behaviour compared to subject-related conversation about etiquette, as observed during the FH meal.

According to Mita et al. (2015), teachers play a key role in pupils' learning processes in school. This is in line with what we observed with teachers playing a key role in pedagogical practices for how school meals were conducted. All three teachers emphasised the FH meal more than the school lunch, and the teachers expressed that the FH meal was important for establishing social relationships, such as sitting around a table eating and talking together. Our findings can also be seen in connection with Oljans et al. (2020), who found that meals are an important part of the FH subject. The researchers interviewed a group of teachers who claimed that the meal was important because the pupils sat around a table, ate, and talked to friends. This was something that the teachers in our study also emphasised. At the school lunch, the opposite was observed. Here, the pupils sat at their desks and ate their packed lunches. There was a clear difference between the teachers' pedagogical practices in that the teachers played different roles during the two meals. In the FH meal, the teachers agreed that the pupils talked together and the food they ate was naturally part of the conversations between the teacher and the pupils, unlike the school lunch where the teachers did not encourage that the pupils talked together. The teachers had no pedagogical responsibility for the content or for what the pupils ate for the school lunch. The teachers considered the packed lunches as a parental responsibility, and the lunch was believed to not be part of the responsibility of the teachers' pedagogical practices. The main explanation for these findings may be that teachers perceive the FH meal as part of the FH subject, and therefore, a central part of the responsibility element in the teachers' pedagogical practices. Benn and Carlsson (2014) also showed that it was more common for teachers to view the school lunch as part of the school's health policy and less as a form of education.

The findings of this study indicate that teachers did not take on a specific role, but that they alternated between different roles. In the FH meal, the teachers had more social interactions in conversations with the pupils than in the school lunch. Osowski et al. (2013) found that teachers could take on different positions, such as sociable, educational, and evasive teacher roles in interactions with pupils, and they expressed that the teacher's different roles in interaction with pupils was closely linked to contextual conditions; thus, the roles were decisive based on contextual differences. Our findings are consistent with those of Osowski et al. (2013). The teachers' interactions in discussions with pupils were more prominent in the FH meals than during the school lunch. During the school lunch, the teachers played a more evasive role by not initiating conversations with the pupils. We also saw in the FH meal that Teacher B was more passive in her interaction with the pupils than her colleagues. The results showed that in the meals where the students participated in deciding the content of the menu (compared to meals decided upon by the teachers), the involvement was also greatest; for example, in conversations about taste preferences related to pizza and pancakes (A, B, and C). Here, the teachers failed to create the same commitment regarding the menu, and it seemed as if the teachers changed their practice in interaction with the pupils by participating in conversations with them about their hobbies. Ludvigsen and Scott (2009) found that sociality often ranked above the food their children ate, which coincides with our results as the teachers seemed to prefer communicating about activities instead of the food eaten during the FH meal. Teacher B, however, showed a different practice of not eating with pupils. She claimed that it was important for the pupils to talk to each other during meals, which may be the reason why she did not participate. Jung et al. (2009) found that children enjoyed sitting together and talking while eating without being disturbed by an adult, which can be seen in the context of Teacher B's decision to let pupils talk without disturbing them.

Andersen et al. (2017) have pointed out that teachers use different forms of dialogue with pupils regarding behaviour during meals. They investigated whether the teachers spoke with the pupils, for example, in conversation, or whether they spoke to the pupils about correction, such as behaviour. Our results reveal a similar distinction where Teachers A and C talked with the pupils and held conversations about table manners. When the teachers approached the pupils at the school lunch, the teachers spoke to the pupils in a one-way dialogue, for example, about not disturbing their classmates. The teachers used a loud voice so that all of the pupils in the room could hear them, and it seemed that the intention was to correct the pupils more than to engage in a learning conversation about sitting nicely.

Our results showed that there are several more elements that can be understood as limiting opportunities for social interaction with pupils in the school lunch compared to that in the FH meal, which may be justified by a school culture. We also saw differences between the three teachers' pedagogical practices, for example, in that all teachers used the Smart Board in the school lunch, as opposed to in the FH meal. This can be perceived as part of the school's culture. This is in line with the research conducted by Lalli (2020), who found that the school culture influenced teachers' behaviours, that is, that the schools were characterised by common perceptions in this area. Our findings are also consistent with that of Fossgard et al. (2019), who found that many teachers chose to use TV programs and films to keep pupils calm in the classroom during school lunch and that both teachers and pupils mainly segmented rules and restrictions to the school lunch. Studies by Beinert, Palojoki, et al. (2020) and Lindblom et al. (2016) found that the relationship between the time set aside in the timetable and the many tasks in the FH subject was a barrier for teachers. Our findings with Teacher B are consistent with this finding. We also saw a connection between the three teachers who were influenced in their pedagogical practice during lunch by the number of tasks required within the given time frame. In addition, the given time frame, allocated locally, was shorter for all schools (see Table 1) compared to the national recommendation of 20 minutes. (Norwegian Directorate of Health, 2015). The FH curriculum (Ministry of Education and Research, 2006) does not specifically mention meals. The teachers were thus free to organise meals within the teaching lesson without time as an indirect limiting factor. Time allocation can be understood as limiting the opportunity for social interaction with pupils at school lunches because the lunch time places a demand on the teachers with its many imposed tasks.

Within the three dimensions of institutional foodscapes, there was a connection between social interaction, duration of meals, and responsibility. We observed a common pattern between influences in the teachers' pedagogical practices in social interactions with the pupils and a greater variation in the roles the teachers took in the FH meal than during the school lunch. During the school lunch, the teachers' pedagogical practices were almost the same. It seemed that the short period of time limited the teachers' opportunity for social interaction and the teachers chose a more withdrawn role to ensure that the pupils could eat their packed lunches. Our findings can be related to those of Priestley et al. (2012), who found that teachers behaved differently in different contexts and that these differences were based on teachers' prior understanding and experience. Our findings indicate that teachers' different behaviours are based on a pre-understanding. The school lunch was more integrated in the schools' daily routines and the fact that all the teachers carried it out in almost the same way can be an expression of a common preconception of how school lunches should be conducted. In the FH meal, there was a greater variation between teachers' pedagogical practices. This indicated that the teachers' experience affected the pedagogical practices to a greater extent during the FH meal than the teachers' pre-understanding. This finding that the teachers had different experiences that affect the content of teachers' pedagogical practice is also confirmed in the findings of Veka et al. (2018) in a previous study on the content of teachers' pedagogical practice. The results also showed that responsibility was crucial for how teachers' pedagogical practices affected the two meals differently. Hovdelien (2010) and Møller and Presthus (2006) claim that Norwegian head teachers and teachers do not interfere with each other's cases. This is in line with our observations and interview findings that the individual teacher is responsible for carrying out the two meals and that the head teachers do not interfere in how the teachers carry out the two meals at school.

Keating (2018) has pointed out that the external frames are the overall frames at the school level, and the internal frames may be, for example, the internal practices in schools. This study showed that external frames, such as the two national guidelines (Ministry of Education and Research, 2006; Norwegian Directorate of Health, 2015) did not affect teachers' pedagogical practices during the two

meals. Thus, it seemed that the internal frames of teachers' practices were governed by influencing different teachers' pedagogical practices during meals. The differences emerged in the duration of meals and the different roles the teachers took on during meals. This finding may be an expression of the practice for the collegial community. All schools conducted the school lunch in almost the same way, while in the FH meal, there were greater variations between the teacher roles. This can be explained by the fact that a collegial community affects school lunches more than FH meals. In result, in this study it appeared to lack a collegial community because experience influenced teachers' pedagogical practices during meals.

Strengths and weaknesses

The methods were adequately chosen. The empirical data were collected in a short period of time, and the analytical triangulation included observations and individual interviews with teachers and head teachers. The observations and individual interviews with the teachers and head teachers ensured an understanding of how these two meals were perceived and carried out in the three schools for this study. The number of schools, observations (such as two of the FH meals and one of the school lunches) at each school, as well as informants provided important insight. The three school principals were limited; thus, this is a weakness in the study. A larger sample size of different schools would have made it possible to uncover more differentiated variations between teachers' pedagogical practices in Norwegian primary schools within the schools' foodscapes.

Conclusion

The article has brought into focus how teachers' pedagogical practices in Norwegian primary schools are affected by two food landscapes: 1) the FH meal and 2) the school lunch. The results showed a clear difference between the teachers' pedagogical practices in the FH meal versus school lunch. In the FH meal, the teachers held two roles, as such, they communicated socially with the students and provided education. During the school lunch, however, the role of the teacher became more passive in which teachers mainly addressed the students when correcting behaviour. This difference could be explained by the fact that the physical space may have affected the meal framework. The findings can also be explained by the teachers' perception of the FH meal as the core of their profession as an educator, while the teacher's presence in the school lunch was perceived as a supervisory role, since the school lunch in Norway does not have a clear pedagogical purpose.

The results of the study have contributed new research knowledge about teachers' different pedagogical practices in two meal contexts in the school setting, which has not been previously investigated. The results of this study highlight that a clearer policy for meals in school should be developed where there is an emphasis on importance of meals and the role of the teacher as pedagogue in facilitating the pupils' development of health-promoting eating habits and social competence during meal time.

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