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Exploring upper secondary school students' experiences of the "Free school meals and sustainable canteens" pilot project in Viken county.

Videregående skole elevers opplevelser av "Gratis skolemåltider og bærekraftige kantiner" pilot project i Viken fylkeskommune.

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Forword and acknowledgments

Embarking on the journey of writing this master's thesis was a daunting task. So many choices to be made, self-doubts and hard work ahead. With a passion for food, and a bachelors in Global nutrition and health, I knew I wanted food to be central to the topic of my thesis. I was therefore thrilled when FHI presented the opportunity to write about school meals. That I could carry out research on two topics that preoccupy me: food and youth participation. On my initial hunt for information about Viken's pilot project, I came across Matvalget who is a key partner in the project. An application later and I attained an internship with them. In February 2022 this turned in to a small but meaningful part time employment. Getting the chance to work closely with the topic of my thesis has without a doubt made the experience ever more rewarding.

Towards the beginning of the thesis process, I received words of wisdom from my supervisor Pavel Grabalov; Everyday try to find at least one thing that is positive about the thesis writing process. Of all the advice I received (while all was very valuable), this stuck with me the most. There were many days that this was in fact a difficult task. Where on other days, the list was long. The research journey has been a valued learning experience both academically and personally.

There are several people that made this thesis possible and supported me along the way. Firstly, I want to thank the students who took part in the study. Thank you for taking the time to attend the focus groups and sharing your valuable and genuine experiences with me. Thank you to the school administrations at Ål school and Kalnes school for recruiting students and welcoming me into your schools. Thank you to Magne Skaalvik from Viken for connecting me with the schools. I also want to thank you Pavel Grabalov. You have truly provided top quality supervision with your concrete feedback, flexibility and your pedagogical ways. Your support has been invaluable. I also want to thank my external supervisor Arnfinn Helleve from FHI. Your professional knowledge about the topic has been key throughout the research process. Also, thank you to all my collegues at Matvalget. Your insights and competencies have been of utmost importance, not to mention your social support. Lastly, thanks to Anders, my partner, for endless backing and for cooking me healthy meals while I write about healthy meals.

Caroline Schwanenflugel

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Abstract

Background: Current human diets are causing detriment to human health, the environment, and climate. Policies that support population shift towards more sustainable and healthy diets are crucial to achieve Sustainable Development Goals. Free school meals may have the potential to broadly influence dietary habits of students, from all socioeconomic backgrounds. In autumn 2020, Viken county municipality initiated a "Free school meals and sustainable canteens" pilot project in 13 upper secondary schools. The pilot project aims to gain insight to how healthy and sustainable free school meals can eventually be implemented in the rest of Viken. As the primary target group, students can offer valuable insights to current implementation and the future scaling of the initiative.

Aim: This thesis aimed to explore the experiences of upper secondary school students taking part in the Viken "Free school meals and sustainable canteen pilot project". The thesis set out to answer three research questions relating to how the students view the free school meals and canteen food, the sustainability components, and their participation in the decision-making processes of the pilot project.

Method: The thesis used a qualitative approach whereby four focus group interviews were carried out with a total of 23 students at Ål school and Kalnes school. Data was thematically analysed by which initial codes were identified and subthemes and main themes formed.

Findings: Many students were positive to having a free meal offer, yet several found meals to deviate from their food preferences. Students had varied levels of understanding of sustainability. They recognised food sustainability as having many benefits on a societal level but did not find sustainability to be important for their own food choices. Furthermore, students experienced their participation to be low. They had little knowledge and understanding about the pilot projects aims and conditions and they experienced that their views were often not heard or taken into account in decisions. This had several repercussions on students overall view of the pilot project.

Conclusions and implications: The findings point to a need to balance healthy and sustainable meals with students' preferences. Furthermore, increasing students' knowledge of sustainability components through connecting classroom teaching with the school meals may support the shaping of sustainable dietary behaviours. Lastly, increasing the degree of student participation in design and implementation could facilitate the successful scaling of the initiative to the rest of the schools in Viken.

Key words: Youth Participation, Upper Secondary School Students, Adolescents, Free School Meals, School Food, Qualitative Study

Sammendrag

Baggrund: Nuværende kostvaner har negative konsekvenser for både menneskers sundhed, miljøet og klimaet. Policy der understøtter befolkningsskifte mod mere bæredygtige og sunde kostvaner, er afgørende for at nå Verdensmålene for bæredygtig udvikling. Gratis skolemåltider kan have potentialet til i vid udstrækning påvirke kostvaner hos elever fra alle socioøkonomiske baggrunde. Viken fylkeskommune igangsatte i efteråret 2020 et pilotprojekt for "Gratis skolemåltider og bæredygtige kantiner" i 13 gymnasier. Pilotprojektet har til formål at få indsigt i hvordan sunde og bæredygtige gratis skolemåltider på sigt kan implementeres i resten af Viken. Som den primære målgruppe kan eleverne bidrage med værdifuld indsigt i den nuværende implementering og den fremtidige skalering af initiativet.

Formål: Denne studie havde til formål at udforske gymnasieelevers erfaringer med deres deltagelse i Vikens "Gratis skolemåltider og bæredygtige kantiner" pilotprojekt. Studie to for sig tre forskningsspørgsmål der omhandlet hvordan eleverne ser på de gratis skolemåltider og kantinemaden, bæredygtighedskomponenterne og deres medvirkning i pilotprojektets beslutningsprocesser.

Resultater: Mange elever var positive over for at have et gratis måltidstilbud, men flere fandt måltiderne til at afvige fra deres madpræferencer. Eleverne havde forskellige niveauer af forståelse af bæredygtighed. De anerkendte fødevarebæredygtighed som at have mange fordele på et samfundsniveau, men fandt ikke bæredygtighed vigtigt for deres egne madvalg. Desuden oplevede eleverne, at deres deltagelse var lav. De havde ringe viden om og forståelse for pilotprojektets mål og betingelser, og de oplevede, at deres synspunkter ofte ikke blev hørt eller taget i betragtning i beslutningsprocesser. Dette havde flere konsekvenser for elevernes syn på pilotprojektet.

Konklusioner og implikationer: Resultaterne peger på et behov for at balancere sunde og bæredygtige måltider med elevernes præferencer. Samtidig kan det at øge elevernes viden om bæredygtighedskomponenter ved at forbinde klasseundervisning med skolemåltiderne understøtte udformningen af bæredygtig kostadfærd. En øget grad af elev medvirkning i design og implementering ville kunne støtte en vellykket skalering af initiativet til resten af skolerne i Viken.

Nøgleord: Ungdomsmedvirkning, Gymnasieelever, Unge, gratis skolemåltider, Skolemad, Kvalitativ undersøgelse

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1. Introduction

The world is facing great challenges in regard to food. On the one hand, current human diets characterised by high energy, lack of diversity, and overconsumption of sugar, fats, and salt, and low intakes of fibre, fruits and vegetables, are causing malnutrition in all its forms (FAO et al., 2021). Undernutrition (despite seeing some reductions) and micronutrition deficiency persist, along with a global rise in overweight, obesity and diet-related non-communicable diseases (Willett et al., 2019). Poor diets are estimated to be responsible for 11 million deaths per year globally (Herrero et al., 2021). On the other hand, current dietary patterns are affecting demands, which are shaping food production and supply that is having degrading effects on the environment and the climate (Herrero et al., 2021). Food is the single largest driver of multiple environmental pressures through loss of biodiversity, land conversion and greenhouse gas emission (Brouwer et al., 2021). There is widespread agreement that multi-level action is needed to align human diets with the goals for environmental sustainability and population health (Brouwer et al., 2021). Adopting sustainable diets, meaning diets that have low impact on the environment, while providing present and future generation with adequate and nutritious food, is both an individual and societal task (Burlingame & Dernini, 2012).

Schools have been identified as a favourable arena to establish healthy dietary habits among children and adolescents (Vik et al., 2020). It is in childhood and adolescence that core dietary habits are shaped (Lien et al., 2001), which may continue into adulthood (Craigie et al., 2011; Mikkilä et al., 2005). Children and adolescents spend a majority of their time at school, with the school meal making up a significant proportion of their dietary intake (Vik et al., 2020). Depending on the school meal policy, school meal's potential reach and scale provide an important opportunity to increase young people's knowledge of health and sustainability and promote healthy and sustainable dietary habits (Colombo et al., 2020; Kolve et al., 2022; Willett et al., 2019). Furthermore, school meals can increase the demand for foods procured through local, shorter, sustainable food chains and agriculture, which have been identified as actions that can contribute to social, economic and environmental sustainability (Brouwer et al., 2021; Willett et al., 2019).

School meals are becoming a growing target for public health promotion across Europe and are a largely politicised phenomenon (Illøkken et al., 2021; Kolve et al., 2022) The topic

of free school meals has been on the Norwegian agenda for a long time, and is widely debated among politicians, authorities, health personnel, parents and students (Kolve et al., 2022). There is no nationally mandated school meal programme in Norwegian upper secondary schools (not in any schools for that matter) and disagreements about whether free school meals should be introduced, and which model is best, persist (Illøkken et al., 2021; Kolve et al., 2022). School meals have been called a "kinder egg'", which metaphorically speaking refers to a measure that has several benefits at once. Healthy school meals can reach about 96% of all children in Norway, from all socio-economic backgrounds (Statistics Norway, 2019), underlining their potential reach. Leading up to the 2021 national parliamentary election, school food was also on the agenda, and the current government has stated on their platform that they plan to stepwise implement a daily healthy, simple meal in schools, giving wide room for schools to organise this themselves (Regjeringen, 2021).

In autumn of 2020, Viken county municipality introduced a free school meal pilot project for 13 upper secondary schools. The 13 pilot schools chosen to test out free school meals were already part of another Viken initiative for "Sustainable canteens", which focuses on procuring and providing food that is local, seasonal, organic and healthy. In this thesis the two initiatives are jointly referred to as the "Free school meals and sustainable canteens pilot project". The pilot project aims to test out how schools can implement a free school meal that is both healthy and environmentally sustainable, which is hoped to lead to insights and experiences that can form a model of school meals that can be implemented at all schools in Viken. (Vikenfylkeskommune, 2021). The pilot project, is anchored in Viken county municipality's strategy for "Health promoting schools." Health promotion is defined as "the process of enabling people to increase control over and to improve their health" (World Health Organization, 1986 p. 1), and schools have been identified as a key setting for health promotion (World Health Organization, 1986). Health promotion in schools can include specific projects, interventions, or programmes, and more general school-based activites that have aim to improve health, influencing health behaviours or developing health-related competencies, as well as addressing other social and material determinants of health (Griebler et al., 2017). Therefore, the current study places the school meal pilot project within the context of health promotion.

In order for school meals to have the intended effects, such as achieving a shift to sustainable and healthy diets, it is important to understand the factors that can affect their implementation and effectiveness (Eustachio Colombo et al., 2021). As primary receivers of the school meals, students can provide valuable insights on how they experience the school meal, and the factors that may affect their acceptance and utilisation of an initiative like the Viken pilot project. Furthermore, as with any health promotion intervention, active participation of the primary target group can, among other things, improve the programme or policy, promote engagement and ownership over its objectives, and foster motivation, which may be important factors to an intervention's success (Griebler et al., 2017). The Viken "Free school meal and sustainable canteens pilot project" has recognised students' perspectives and their participation as valuable tools for success (Vikenfylkeskommune, 2020, 2021). Understanding how students' in Viken experience the pilot project, and their participation within it, may lead to insights that can improve the further development and implementation of pilot project.

2. Aim, research questions and outline

This thesis aims to explore how upper secondary school students experience the "Free school meals and sustainable canteens pilot project" in Viken county municipality. In order to address this overall aim, I am focused on three research questions:

1) *How do upper secondary school students view the free school meals and the canteen food after implementation of the pilot project?*

2) *How do upper secondary school students view components of sustainability particularly those incorporated in the pilot project?*

3) *How do upper secondary school students experience their participation in decision making processes of the pilot project?*

The thesis consists of nine chapters. From this point forward, Chapter three presents the background context for the thesis, which consists of six subsections. Chapter four consists of four subsections and provides a theoretical framework and empirical evidence on participation of young people, particularly in the school setting. Following this, Chapter five presents a detailed description of the qualitative research method used, with seven corresponding subsections. Chapter six has three subsections and presents the findings from the focus group interviews. Chapter seven has four subsections, which provide a discussion of the main findings, with reference to the theoretical framework and empirical research presented in the background. Chapter eight provides methodological reflections under three subsections. Chapter nine concludes on the study finding and discusses implications for practice.

3. Background

The background chapter of the thesis provides previous research and contextual information relevant for the current study. First, the chapter presents some of the public health and dietary challenges facing adolescents, with particular focus on the Norwegian context. Here, the link between sustainability and food will also be presented. Furthermore, literature is presented on the potential effects that school meals have on diets, health, learning outcomes and sustainability. The chapter will also provide previous research on adolescents' experiences of school meals, and their views on sustainability. Following this, the historical development of school meals in Norway, and current Norwegian school meal policy will briefly be presented. Lastly, the Viken pilot project will be described in detail.

3.1 Norwegian public health challenges linked to diet

Seen in a historical context, Norwegian public health has never been better, with improvements in several indicators, such as increased lifespan, reduced child mortality, reduced poverty, and an increase in general education level, as well as great reduction in the proportion of people who are severely undernourished (Bruun et al., 2018). Nonetheless, several health challenges persist. Non-communicable diseases (NDC's), like cardiovascular disease, diabetes, cancer, dementia, as well as mental health challenges, are the largest contributors to the national burden of disease (Grøholt et al., 2018). Furthermore, like most other middle- and high-income countries, Norway has seen an increase in malnutrition and overweight and obesity, in the last 10 years, which are closely associated to the risk of NCD's (Nasjonalt råd for ernæring, 2017). This trend has been observed in all groups in the population, independent of age, gender, and level of education (Nasjonalt råd for ernæring, 2017). Around 15-20% of children and adolescents are overweight or obese, although there are signs that these rates are stabilising (Meyer et al., 2017).

These health challenges vary significantly between different groups within the population, and systematic health inequalities are a persistent challenge in Norway (Haug et al., 2020). Health inequalities are larger in Norway than many other European countries (Dahl et al., 2014). A clear social gradient exists within all age groups and genders for all health outcomes, where the higher the socio-economic status of a group, the better health that group has (Helsedirektoratet, 2005). Among children and adolescents, those that come from households with low socioeconomic status have poorer health than those from families with higher

socioeconomic status (Elstad & Pedersen, 2012). Adolescents from higher socioeconomic households tend to report higher quality of life, better health and less mental health issues (Bakken et al., 2016). The levelling of social inequalities in health is widely prioritised area within Norwegian public health policy, which was particularly solidified in 2007 with a 10-year national strategy for levelling of social health inequalities, that was renewed in a later Parliamentary report (Helse- og omsorgsdepartementet, 2015; Strand & Næss, 2007).

There is a clear link between diet and physical and mental health (Grøholt et al., 2018). Poor diets are one of the most important risk factors for disease and early death globally (World Health Organization, 2003) and is the second largest risk factor in Norway, after tobacco use (Grøholt et al., 2018). The Norwegian Burden of Disease project has identified unhealthy diets as one of the ten biggest public health challenges in Norway, where diets alone are estimated to be responsible for 8000 deaths annually (Grøholt et al., 2018). It is also now more apparent that individuals' diets in early years affect body composition, physiology and cognition, that have implications for adulthood (World Health Organization, 2003, 2014). Establishing healthy dietary habits in early years is especially important, as these can continue into adulthood, and may influence the risk of overweight or other risk factors for non-communicable disease in later life (Gorski & Roberto, 2015). Therefore, efforts to positively shape children and adolescents' diets is crucial (Grøholt et al., 2018)

3.2 Dietary habits of adolescents in Norway

Although national dietary studies (Hansen et al., 2017; Hansen et al., 2015) suggest that Norwegian adolescents have a fairly varied diet, overall intake of foods like fruit and vegetables, whole-grains and fish, are below the recommended intakes for optimal health. Moreover, many children and adolescents have a diet high in saturated fat, salt and added sugar (Hansen et al., 2017). Although the consumption of sugar-sweetened food and beverages have reduced in the last ten years, intakes are still higher than recommended (Bolt-Evensen et al., 2018; Hansen et al., 2017; Hansen et al., 2015). For example, A WHO study of Nordic diets showed that around 12% of Norwegian 15-year-old boys drink sugar-sweetened beverages daily, and their intake of these beverages and sweets is significantly higher than in other Nordic countries (Haug et al., 2020). There is also a tendency for boys to consume more sugar-sweetened beverages and less fruits and vegetables than girls (Hansen et al., 2017). The results of these national dietary assessments (Hansen et al., 2015, 2017) are to a large extent only representative of children who come from middle to high income households, and less is known

about the dietary habits of children from lower socioeconomic backgrounds (Grøholt et al., 2018). This is due the low participation rates of this group. However, some evidence suggests that children and adolescents from lower socioeconomic households have a tendency to consume higher amounts of sugar sweetened beverages and lower amounts of health promoting foods (Hansen et al., 2015; Lazzeri et al., 2016).

Estimations have been made that Norwegian adolescents consume around one third of their food and drink intake in the school environment (Chortatos et al., 2018). In Norway it is traditional to eat one warm meal a day, along with the bread based packed lunch (Kolve et al., 2022). A survey by Bugge (2007) showed that many adolescents (between age 15-24 years old) bring a packed lunch three days or more out of the week, while 19% never or rarely bring lunch to school. This packed lunch mainly consists of bread with various toppings, particularly cheese and processed lunch meats (Forskningsrådet, 2018). This may make it challenging for children and adolescents to get enough fish, vegetables and legumes in their diet (Kolve et al., 2022). Furthermore, it is suggested that around 30% of adolescents visit food stores close to their school (Bugge, 2007), purchasing unhealthy food and drink from nearby shops rather than consuming the lunch they brought from home (Bugge, 2007; Haug et al., 2020; Lazzeri et al., 2016).

Irregular meal patterns and skipping breakfast have also been raised as a concern related to children and adolescents' diets (Bugge, 2007; Hansen et al., 2017; Haug et al., 2020; Lazzeri et al., 2016), and the prevalence of breakfast consumption appears to reduce as children age (Bugge, 2007). Preliminary results from a study carried out with Viken county municipality and Norwegian Institute for Public Health (NIPH) showed that about 21% of children in Viken county municipality skipped breakfast before coming to school and 5% skipped lunch at school (Tufte Bere, 2021). This study has a small sample size, and more research is needed, nevertheless, this mirrors the concerns raised by others (Bugge, 2007; Lazzeri et al., 2016). Regular meal frequency has been shown to be important for health (Moreno et al., 2010) and high meal frequency (eating frequent meals throughout the day) has shown to have an inverse association with childhood obesity (Toschke et al., 2005).

3.3 School meals as an intervention for improving diets, health and learning

In 2017, The National Action Plan for Better Diets (2017-2021) was introduced in Norway, which put particular focus on improving the diets of children and adolescents (Helse- og

omsorgsdepartementet 2017). Several nutrition and health targets were set for this target group, to address some of the dietary challenges mentioned in section 3.2. These included aiming to increase the intake of fruit, vegetables, and fish, and keeping obesity rates stable. The plan also emphasised school food as an important contributor to health and learning outcomes of adolescents (Helse- og omsorgsdepartementet 2017).

In Norway, children and adolescents, regardless of gender and socioeconomic status, spend around 190 days annually at school, for 13 years, where they consume at least one meal during the school day (Kolve et al., 2022). It is, therefore, possible to see how the provision of quality, free school meals could potentially improve the diets and health of children and adolescents, while reducing inequalities in diets (Kolve et al., 2022). Evidence suggests that specific school food environment policies can improve dietary behaviours (Micha et al., 2018) and implementing universal measures early in life, have been shown to have the largest effect on reducing social inequalities (Dahl et al., 2014). Furthermore, evidence points to positive correlations between diet and learning outcomes (Burrows et al., 2017). Studies have shown that regular meal frequency and the quality of the food that children and adolescents eat, can influence students' ability to concentrate and perform at school both in the short term and in long term (Hoyland et al., 2009; Kolve et al., 2022). Nonetheless, the evidence on the actual effects of free school meals on diet, health, social inequality, and academic performance, is not unequivocal (Kolve et al., 2022).

On behalf of the Norwegian Ministry of Education, Dahl and Jensberg (2011) set out to systematically review a wide range of literature on the effects of food and drink in schools and day cares on health and learning outcomes (Dahl & Jensberg, 2011). The authors conclude that long-term research is lacking, and they could not provide evidence to suggest that the provision of free school meals have positive effects on health or cognition in the short term. Furthermore, there is no significant evidence to suggest that a complete, free school meal can prevent unhealthy dietary habits, or that free school meals can compensate for the inequalities in diets between different socioeconomic groups (Dahl & Jensberg, 2011). Despite the lack of support for the direct effects of the food itself on health, Dahl & Jensberg (2011) suggest that increasing access to healthy food, while hindering access to unhealthy foods, can support positive dietary changes of school children. Furthermore, when the school meal is implemented as a holistic policy, not only focusing on the meal composition, but also the meal as a social arena, as well

as targeting students' knowledge and attitudes, school meals may be able to influence children's awareness of their own eating habits in the long term. (Dahl & Jensberg, 2011)

A large international review by Cohen et al. (2021) examined the literature on the effects of universal free school meals on diet quality, Body Mass Index (BMI) and learning outcomes, among other variables. Many of the international studies included in the review point to positive effects of school meals on students' dietary quality, food security, and school outcomes, such as academic performance and attendance rates. Furthermore, the authors found evidence to suggest that school meals have no adverse effects on BMI, and may even reduce BMI (Cohen et al., 2021). The authors conclude that, with the implementation of strong dietary guidelines in schools, free school meals have the potential to improve diet quality.

Few studies have been carried out in the Norwegian or the Nordic context. Only eight of the studies in the review by Cohen et al., (2021) came from Norway and Denmark, and only represented five different school meal projects. Some of these studies from Nordic countries showed that the provision of school meals led to improvements in students' diets (Kolve et al., 2022). A study by Andersen et al., (2014) investigated the effects of providing school meals that were based on the Nordic Nutrition Recommendations (the scientific basis for national nutrition recommendations in the Nordic region) on the intake of foods and nutrients on Danish children 8–11-years-old. After a 3-month period, improvements were seen in overall dietary intake. Similarly, a Norwegian study showed that the intake of fruit, vegetables and fish at school increased, after receiving a free healthy school meal every school day for six months (Illøkken et al., 2017). Another Norwegian study of 10-12 year-olds by Vik et al (2019) found evidence that providing a free school meal for one year was associated with the increase intake of healthy foods, especially among children from lower socioeconomic backgrounds, and suggest that free school meals may contribute to reducing health inequalities among school children (Vik et al., 2019). Authors of these two Norwegian studies point to the need for studying potential long-term effects (Illøkken et al., 2017; Vik et al., 2019).

A new report by the Norwegian Institute for Public Health (Kolve et al., 2022) reviewed evidence on the effects of school meals. The authors point out that the effects reported in these above-mentioned Nordic studies are small, and research on the long-term effects are missing. The extent to which school meals improve the diets of Nordic students is therefore uncertain (Kolve et al., 2022). The potential of school meals effect on dietary outcomes of Norwegian

children and adolescents rely on several contextual factors such as the quality of food served at the school, the students' acceptance of the meals and what other food they eat at school (Kolve et al., 2022). How students experience the overall school meal situation, both in terms of the food and the social environment, will have implications for the effect of free school meals (Illøkken et al., 2021).

3.4 Sustainability, food and school meals

The United Nations Sustainable Development Goals (SDGs) set targets to improve diet, health, reduce social inequalities, reduce environmental degradation and stop climate change (Desa, 2016). The current food system that is "*the production, marketing, transformation and purchase of food, as well as the consumer practices, resources and institutions involved in these processes"* (Scott, 2017, p. 654), poses major challenges for human and environmental health, hampering achieving of the SDG targets (Brouwer et al., 2021). On the one hand, the excessive availability of food high in energy and fat along with sugar-sweetened beverages, are causing some of the dietary challenges mentioned in section 3.1 such as obesity and malnutrition in all its forms (Brouwer et al., 2021). The food system also has major environmental impacts on biodiversity loss, climate change, natural resource depletion and contamination of air, soil and waters (Lindgren et al., 2018; Oostindjer et al., 2017; Willett et al., 2019). For example, food production contributes particularly to these issues via food loss and waste, greenhouse gas emissions (particularly meat production), transportation over long distances (particularly air freight) and freshwater use (Garnett, 2011). On the consumer end, daily food and nutrition choices that favour low priced food with a high ecological impact, with high rates of food waste, further contributes to these issues (Garnett, 2011; Garnett et al., 2015; Oostindjer et al., 2015). While there is a need for a multifaceted approach to fixing the food system, there is wide agreement that shifting current food demands, through population-level dietary change, is needed (FAO, 2018; Lindgren et al., 2018; Willett et al., 2019).

According to the United Nations Food and Agriculture Organisation (FAO) a sustainable diet is a diet that has a low environmental impact and contributes to ensuring food and nutrition security and a healthy life, for current and future generations (Burlingame & Dernini, 2012). Furthermore, *"sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources."* (Burlingame & Dernini, 2012, p. 7). The complexity of sustainability can make it difficult to assess exactly what a

sustainable diet consists of (Jones et al., 2016) however, there are many similarities between a healthy diet and a sustainable diet (Nasjonalt råd for ernæring, 2017). A diet with a high intake of fruit, vegetables, whole grains, legumes, and low in meat and processed meat products, are some of the similarities (Nasjonalt råd for ernæring, 2017). In 2017, The Norwegian National Council for Nutrition (2017) reviewed the 12 official National Dietary Guidelines from a sustainability perspective and concluded that adopting a diet in line with the guidelines, particularly characterised by high intakes of plant-based foods, is more sustainable than current diets seen in the wider Norwegian population. Unfortunately, neither adults nor children and adolescents fully follow the official dietary guidelines today (Nasjonalt råd for ernæring, 2017). Food that is based on organic agriculture has been shown to have positive effects on biodiversity, soil quality, soil structure, and may generally improve the environmental sustainability of agriculture (Solemdal & Serikstad, 2015). Furthermore, food that is produced "locally" or "short-travelled" food, may also contribute to sustainability through reducing emissions from transportation, supporting local food producers, and ensuring food production based on local resources, which are in line with the SDGs (Ritchie & Roser, 2020).

While sustainability is rarely an overarching aim of school meal policies, there is a growing interest in incorporating sustainability within school meals (Oostindjer et al., 2017). The EAT-Lancet report from 2019 highlight school meals as a food system intervention that may improve malnutrition and climate change (Willett et al., 2019). However, the relationship between school meals and sustainability is not straight forward, and few (if any) studies have provided robust evidence that school meals have an impact on sustainability (Oostindjer et al., 2017). This is largely due to the complexity influencing environmental impact: where food that is served comes from, the carbon footprint of the food, how the food is sourced, the distance the food travelled, whether food is organic or not, and food waste (Oostindjer et al., 2017). Nonetheless, approaches which focus on improving the quality of food served in schools may have both nutritional benefits and contribute to sustainability (Kolve et al., 2022; Oostindjer et al., 2017).

A whole-school approach where educational activities are connected to the provision of high-quality food can also influence the extent to which school meals impact diet and sustainability. In their cross-national comparative framework review, Oostindjer et al., (2017) conclude that the school meal may be a potential learning arena where students can learn about where food comes from, how it is produced, and how to reduce food waste and more generally about

sustainability. The school meal may also have potential to be used as a pedagogical tool to learn about nutrition, culture, social and political systems (Benn & Carlsson, 2014; Weaver-Hightower, 2011). In this way, school meals can contribute to sustainability through interaction with education, social relationships, food and the school environment, to support the development of sustainable food behaviours (Oostindjer et al., 2017). Therefore, exploring how students affected by sustainable school meal policies understand the different components of sustainability may identify ways to connect school meals with teachings on sustainability.

3.5 Student experiences of school meals

In order to roll out school meals that contribute to both health and sustainability, factors that affect the process of implementation and the process more generally, need to be understood (Eustachio Colombo et al., 2021). This could include factors within the school organisation such as the availability of resources, or the outer school settings such as external policies and incentives. Moreover, understanding how children and adolescents as receivers of sustainable school meals experience these, could provide insight into motivations, preferences and social norms, which may support the design of effective programmes to change unsustainable dietary patterns (Garnett et al., 2015).

A study by Asada et al., (2018) aimed to understand the experience and perceptions of high school students in the U.S., following school meal programme standards reform. Students provided several recommendations to improve school meals, such as greater communication of the importance and intention of the school meal reform. Furthermore, students called for increased opportunities for engagement in the meal reform. Another US study by Payán et al., (2017) found that students were generally positive to school meals becoming healthier. However, students lacked motivation to consume healthy food, which, combined with the lack of flavour and appeal of school meals, hindered students from consuming healthy school meals.

Findings from a Swedish study by Colombo et al., (2021), showed that, after receiving a 4-week nutritionally adequate and climate-friendly lunch menu, some students thought the food tasted better during the intervention period, while others expressed dissatisfaction with the meals which was viewed as a challenge to the implementation of the new sustainable and healthy meals. Interestingly, students also expressed a general dislike of school meals irrespective of the intervention. Factors like taste (e.g. seasoning) appearance, smell and recognition of food were particularly found to be important to the acceptability of plant-based

foods. Students eating habits were discussed as being both a potential barrier and facilitator. On the one hand, habitual eating habits could impede students'' acceptance of plant-based foods. On the other hand, current eating habits could also be utilised through increasing exposure to plant-based meals that students recognised. Among other things, authors point to the need to gain a better understanding of students' attitudes towards school meals before commencing an intervention and integrating students' preferences to a greater extent (Eustachio Colombo et al., 2021). Several other studies have shown that food preference such as taste are important factors determining how students experience school meals and for the successful implementation of food policies in schools (Aarestrup et al., 2014; Payán et al., 2017; Ziegler et al., 2021).

Similar findings were shown by a newly published study by Mauer et al., (2022) of a school meal pilot in Oslo. Predictability of the meals served, and the social eating environment positively influenced students' use of the school meals, whereas the attraction of nearby shopping centers competed with the school meals. Mauer et al., (2022) found that serving food that is deemed popular to students and that suits their preferences, increases students' utilisation of school meals, and can in some cases, “outcompete” the nearby shops. Unfortunately, popular foods were seldomly associated with healthy food. This points to the challenge of school meal polices to ensure that healthy meals are provided while not jeopardising the students' willingness to eat these meals Something that has been found by others as well (Bailey-Davis et al., 2013; Eustachio Colombo et al., 2021; Kolve et al., 2022).

A study by Illøkken et al., (2021) explored the experiences of Norwegian students receiving free school meals. Students in the study viewed the school meal as an opportunity to socialise with peers and to learn new skills. Furthermore, they perceived the meals to have a positive impact on the quality of their diets, particularly for students who came from lower income families. Students reported that the exposure to fruit and vegetables in the school meals encouraged them to eat more of these foods, and they began to like these foods more. Some reported gaining increased knowledge of healthy eating. The authors conclude that free school meals may offer an arena that fosters healthy eating habits, social development and capacity for learning (Illøkken et al., 2021).

In 2020, The Norwegian Institute for Public Health (NIPH) carried out a project to test out the feasibility of implementing free school meals at Norwegian secondary schools (Kolve et al.,

2022). NIPH developed a simple healthy and sustainable two week-menu based on criteria that are in many ways similar to those of the Viken pilot project, which will be described in section 3.9. Students were initially positive to being served a free, warm meal, and many were especially positive to the social aspects of eating together. However, when it came to the specific food served, students said that meals were not suitable for children and wanted more variation, simplicity, familiar foods. Several students also wanted more meat in the school meals, something that has been found by other (Lombardini & Lankoski, 2013). Other students were more positive to the reduction of meat, although they found the meals to be boring. While the authors conclude that it is in fact feasible to implement a healthy, sustainable and cost-effective free school meal, their findings point to the challenge of balancing students' diverse food preferences and student satisfaction, with health, sustainability and available resources in the canteens. Understanding students' attitudes towards the food served and how students experience free school meals in a given context, is important for the successful design and implementation of school meals (Kolve et al., 2022).

3.6 Adolescents' views on sustainability

Components of environmental sustainability have been seen to be incorporated more in the provision of school meals in middle and high-income countries (Oostindjer et al., 2017). Understanding how adolescents view components of sustainability, particularly with regards to food, can support school meals to foster sustainable diets among this group. This is particularly relevant because food behaviour, along with values and attitudes towards sustainable food consumption, begin to form during adolescence (Kamenidou et al., 2019). This age group will also be especially affected by future climate change and environmental degradation outcomes (Kamenidou et al., 2019).

Research in the area of adolescents' general sustainability concerns and behaviour is limited (Francis & Davis, 2015). A study by Francis and Davis (2015) explored how adolescents view sustainability and their reasons for not consuming (not just food but also other forms of consumption) sustainably. This study found that 12-14-year-old adolescents were slightly aware of and concerned about a number of environmental, personal well-being and societal components of sustainability, which mirrors a large body of research showing that children from various cultural and economic backgrounds have similar concerns about climate change, environmental damage, resource depletion and other environmental concerns (Francis & Davis, 2015). The study also found several reasons for adolescents not consuming sustainably,

including not recognising the implication of their consumption behaviour on sustainability; not knowing the most sustainable consumption options; cost, convenience and time; hedonic preferences and peer pressure; and being concerned but externalising personal responsibilities onto others and general apathy. The authors conclude there is a need to gain a better understanding of the relationship between adolescent consumers and sustainability in order to encourage more sustainable consumption behaviour (Francis & Davis, 2015).

A master's thesis exploring Finnish adolescents' perceptions on ecologically sustainable food consumption found that reducing the consumption of red meat, purchasing locally produced and organic food, as well as food waste, were perceived as being ecologically sustainable (Malila, 2020). While the participants in the study expressed the importance of consuming in an ecologically sustainable way, and a willingness to do so, their actions did not always align with these intentions (Malila, 2020). Some of the barriers to consuming sustainable foods were cost, taste preferences, and the lack of information about sustainable food.

A Danish study by He et al., (2012) found that exposure to organic food through school meals and the teaching curriculum positively influenced students' attitudes towards organic food, healthy eating. These positive attitudes held by students impacted their intention to consume organic food. However, these intentions did not translate into actual behavioural changes. Nonetheless, the authors conclude that organic school food policies have the potential to raise students' awareness of healthy, organic foods, and healthy eating behaviours (He et al., 2012).

The Swedish study by Eustachio-Colombo et al., (2021) found that student perceptions of the meaning of diet sustainability were broad. Students discussed diet sustainability and showed an understanding of the co-benefits of environmentally friendly foods, such as reducing meat intake and food waste, and increasing intake of fruit and vegetables. Students recognised the importance of making sustainable choices, something that the authors conclude to be positive for the implementation of sustainable school meals. However, many students found it difficult to implement these values in their daily food choices. Sensory factors like taste, appearance and recognition were more determining of their food choices than whether food was considered sustainable. The study highlight's the complexity of children's eating behaviours. Having relevant knowledge, information and values may only be partly determine eating behaviours, and the interaction between biological, environmental, cultural and social factors play may play a more critical role (Birch et al., 2007). Still, having knowledge and understanding of diet

sustainability, while also being offered food that align with student preferences and eating habits, can help facilitate students' acceptance of healthy and sustainable meals (Eustachio Colombo et al., 2021).

3.7 Historical development of the provision of school meals

The development and objectives of mandated school meal programmes in middle- high income countries have changed throughout history and can be viewed in terms of two phases, with a third phase in its early development (Hernandez et al., 2018). Phase one was the initial establishment of school meal programmes between 1850 and 1950s, based primarily on the need to reduce hunger and provide sufficient calories to children and adolescents. Phase two came around 1970s, where objectives of school meal programmes shifted from focusing on food security to improving food quality, with a focus on dietary guidelines. This was particularly a response to the rising rates of obesity and lifestyle diseases (Oostindjer et al., 2017). This is still where the focus lies in many countries, with several high-income countries having implemented national guidelines to improve nutritional quality of school meals (Oostindjer et al., 2017). Early stages of a third phase is now seen in some high income countries, shifting from a focus on food quality, to recognising the community and societal impacts of food (Oostindjer et al., 2017). These may take many forms, such as incorporating more comprehensive school food programmes and policies into the school curricula and the school environment (Hernandez et al., 2018).

As in many countries in Europe, Norwegian school meals were first established around the 1890s with the main objective of giving undernourished and impoverished children, adequate food, to for better learning (Andresen & Elvbakken, 2007). School meals were a topic of great debate in Norway, centered around whether school meals should be universal or only offered to children from low-income families (Andresen & Elvbakken, 2007). A debate that continues to some degree today (Kolve et al., 2022). Nevertheless, in the 1890s, where schooling became compulsory and the authorities became responsible for children's well-being during school hours, a hot meal scheme was implemented in Bergen and Oslo (Andresen & Elvbakken, 2007).

The "hot meal" came under criticism from medical experts, particularly Carl Shiøtz, who, as the director for school health services (1919-1931), with a strong interest in nutrition science, was influential in setting the agenda for school meals (Alsvik, 1991). Among other things, he promoted school meals as a pedagogical ritual, one that could teach students to eat

in line with the latest nutritional knowledge (Alsvik, 1991). Shiøtz argued that the "hot meal" provided inadequate calories, and micronutrients, and it was observed that many pupils did not eat breakfast before coming to school. Based on this, and the latest nutrition science at the time, Shiøtz proposed a revised program for school meals which was a breakfast meal consisting of crisp bread, margarine, cheese or sausage, a raw apple, carrot, or orange and milk (Andresen & Elvbakken, 2007). In the early 1930s, this was implemented in Oslo and Bergen and came to be known as the "Oslo breakfast". The "Oslo breakfast" can be viewed as the shift from focusing on providing the most amount of food for the least money, to providing children with diets supported by science at that time, with adequate vitamins and minerals. It is viewed by some as the "scientification" of school meals (Sejersted, 2005). In 1935, Shiøtz model was implemented as a universal measure (Andresen & Elvbakken, 2007).

Outside of the cities, another model of school feeding was implemented, based on the packed lunch from home. District doctor Lien from Sigdal municipality argued that the implementation of the "Oslo breakfast" was unsuitable for smaller areas. In the mid 1930s, Lien developed guidelines aimed at improving the home packed lunch (Lien, 1936) based on the "Oslo breakfast" principles. Here, the school health nurses and teachers were to inspect and monitor that children's packed meals were in line with the guidelines. This scheme came to be known as the Sigdal system, after Sigdal Municipality (Lyngø, 2003).

By the 1950s, the amount of distributed school meals peaked in Norway, and about half of Norwegian students participated in some form of breakfast system (Eng, 1952 cited in Andresen & Elvbekken, 2007). The policy for public provision of school meals was underpinned by the need to serve children in need, while at the same time teaching them how and what to eat. However, following the development of post-war welfare state, the material and educational need was argued to be less pressing. This, coupled with the high costs of the universal school meals, led to Norwegian policy for school meal provision to subside completely by the end of the 1950s. In the start of the 1960s school meals in Oslo and elsewhere instead came to follow the Sigdal system. The home became the arena for nutritional education (Haavet, 1996) and the provision of a packed meal became the responsibility of the parents, particularly the housewife (Andresen & Elvbakken, 2007).

3.8 Current school meal policy in Norway

Today, there is no nationally mandated school meal policy in Norway, neither free nor paid for by parents (Vik et al., 2019). School meal arrangements vary depending on the school, however most upper secondary schools have a canteen. Some schools in Viken county municipality

(prior to the pilot project), and other counties, offer a free school meal in some form or another, and many schools have a free fruit arrangement, which, up until 2013, was nationally mandated (Chortatos et al., 2018). The food that is available in canteens also varies greatly (Chortatos et al., 2018). The "National guidelines for food and meals in schools" provides a tool to assist school administrations in managing their school canteens (Helsedirektoratet, 2015). These guidelines provide direction on the implementation of school meals such as mealtimes, supervision during meals, and physical and social arrangements, nutritional quality of the food and drinks, food safety and hygiene aspects, as well as environmental considerations (Chortatos et al., 2018). The guidelines are anchored in The Norwegian Education Act *§9 A-2* which states *"all children in their school environment have the right to a good physical and psychosocial environment that promotes health, wellbeing and learning"* (Kunnskapsdepartementet, 1998). The guidelines are further anchored in the "Regulation for environmentally adapted health care in day-care centres and schools etc" (Helse- og omsorgsdepartementet, 1995) and the "Public health act" (Helse- og omsorgsdepartementet, 2011).

A national survey by the Norwegian Directorate of Health from 2013 mapped food and meal offers in Norwegian schools (Helsedirektoratet, 2013). The survey showed that, in many ways school food and meals in Norway are mostly in line with the government recommendations. However, there is a need to improve the school food offer particularly in regard to the relatively high proportion of upper secondary schools offering food and drinks that are high in sugar and saturated fats (Helsedirektoratet, 2013). The authors of this report also point to the challenges that upper secondary schools face when trying to serve food and drink that is in line with the national guidelines. Upper secondary school students have the freedom to leave the school and purchase food at nearby shops during lunch hours, and schools struggle to compete with these offers both in terms of price and variation in the food offered. The authors highlighted that dialogue with the students can be a crucial factor to ensure that the school canteen has a food and meal offer that is both healthy and attractive to students (Helsedirektoratet, 2013).

These challenges regarding food offered in the school canteens, the health and dietary habits of adolescents, and sustainability challenges, form the rationale for the Viken "Free school meal and sustainable canteen" pilot project.

3.9 The Viken "Free school meals and sustainable canteens pilot project"

The Viken "Free school meal and sustainable canteen pilot project" was introduced in 13 pilot schools during autumn 2020. In the following chapters, it will often be referred to as the pilot

project. The pilot project is anchored in Viken county municipality's "Strategy for Health Promoting Schools (2021-2023)." The strategy aims to provide *"a tool for the schools in the work of giving the students the best possible education towards completion and passing*." (Vikenfylkeskommune, 2020, p. 4). The strategy defines eleven characteristics of a health promoting school. The seventh and eighth characteristics form the main components of the pilot project. The main components of the pilot project are:

- Food and meals follow the national dietary guidelines for food and meals in schools.
- Meals should be considerate of religion and world views.
- There should always be a vegetarian option.
- Food should be sustainable and a minimum 30% of the food should be organic.
- Schools should offer one free school meal every day (15NOK per meal budget).
- Schools should work to reduce food waste.

Furthermore, school canteens should facilitate good experiences and healthy dietary habits (Vikenfylkeskommune, 2020). Viken county municipality places the The UN's 17 Sustainable Development Goals as their basis for societal development "in everything" Viken County Municipality does, and the canteen should be drifted on principles of sustainability (Fylkesrådet, 2021).

To realise the ambitions in the pilot project, Viken county municipality entered into collaboration with the organisation Matvalget which provides practical and technical support to the canteen employees and the school administration in many different aspects of the implementation of the school meals. Matvalget is a non-profit guidance service without special financial interests, working with public and private enterprises who want to serve food in a more healthy and sustainable way (Matvalget, 2020). Matvalget bases much of their work around six principles of a sustainable meal: meals made from scratch, use of vegetables, legumes/pulses and grains, use of seasonal produce, make conscious choices when using meat and seafood, cut food waste, and utilise more organic food (Matvalget, 2020). These principles are incorporated in all the 13 pilot schools that Matvalget works with in Viken. During the entirety writing this thesis, I have been part-time employed at Matvalget. This will be described in more detail in section 5.7.

With its many components, this pilot project can be viewed as a strategy for tackling both national public health goals by offering a healthy, daily school meal as well as national agriculture goals of increasing the sales of local and organic food (Regjeringen, 2021). The

experiences learned from the pilot project are hoped to lead to insights that can support the development of a county wide initiative (Vikenfylkeskommune, 2021). Student participation is viewed as a positive tool for creating commitment around the initiative and providing insight in the pilot project, and the further development of school meal policy in Viken (Vikenfylkeskommune, 2020). Viken's "Health promotion strategy" states that schools should collaborate closely with students (and other stakeholders) in co-creating the school's action-plan for health promotion (Vikenfylkeskommune, 2020). Furthermore, Viken county municipality has stated that *"it is the schools in collaboration with the students who will choose what and how they will implement the free meal offer"* (Vikenfylkeskommune, 2021). The topic of youth participation is central for this thesis and next chapter is devoted to theories of youth participation.

4. Theoretical framework and empirical research on youth participation

The following chapter will present the concept of child and adolescent participation. Section 4.1 will present a normative understanding of participation in the context of schools and health promotion. Within participation literature, and legislation, the use of the term child means any person up to eighteen years old. As Hart (1992) does, I use the terms adolescents and students to embrace persons in their teenage years, and youth and young people to embrace both age groups (Hart, 1992). These words are used interchangeably in the thesis which reflects their usage in the literature on participation. Section 4.2 and 4.3 presents two models of youth participation which further guide the study's conceptualisation of participation that have influenced the development of the interview guide, data analysis and discussion of the findings. Section 4.4 will present existing research on the effects of student participation in the school setting, with focus on food and health policies, as well as research that examines students experience in participatory processes.

4.1 Understanding youth participation

The use of the term "participation" dates back to the 1970s. The term gained particular traction after the United Nations Convention of the Rights of the Child 1989 (UNCRC), which solidified that children have a right to be heard, to participate in and to influence matters affecting them, and has since then had significant implications for young people's participation in policy, education, research, and community development (Hart, 1992). Article 12.1 of the UNCRC states *"State Parties shall assure to the child who is capable of forming his or her*

own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child." (UNICEF, 1989). Norway's ratification to the UNCRC in 1990 (Engdahl, 2019) led to the incorporation of the convention in several Norwegian laws such as The Kindergarten Act, The Planning and Building Act, The Local Government Act, and The Education Act (Sandbæk & Einarsson, 2008).

Democracy and participation are central values of education (Somech, 2002) and the school has a fundamental role in giving students the knowledge and understanding of democratic values (Frøyland, 2011), what Jensen and Simovska (2005) call "democracy upbringing". This is also emphasised in the Education Act §9A-8: "*Pupils must be allowed to take part in the planning and implementation of the work for a safe and good school environment"* (Kunnskapsdepartementet, 1998). Together with "public health" and life-skills" and "sustainability," "participation and democracy" is also one of the three interdisciplinary topics included in the new national curriculum (Fagfornyelsen) from 2020 (The Norwegian Directorate for Education and Training, 2020).

Within the literature on participation there is not one uniform definition (see Griebler et al., 2017; Mager & Nowak, 2012) and the term is widely used to describe activities ranging from young people simply being present or part of an activity, to being consulted and informed, to taking an active part in, and having substantial influence in decision making (Griebler et al., 2017; Nordin et al., 2010). From a health promotion perspective, participation is about including the target group of an intervention or project in the process (Bruun Jensen & Simovska, 2005; Frøyland, 2011).

Within health promotion, an interaction between various participation strategies can be seen, with the intention to develop young people's motivation to engage in the activities that aim to improve their health (Simovska, 2007). At other times, youth participation may take the form of questionnaires or surveys where young people provide their attitudes and views about a health promotion intervention, which are then used to influence campaigns or information material (Nordin et al., 2010; Simovska, 2007). In both cases, young people take part in already planned activities. Their opportunity to have real influence is limited (Nordin et al., 2010). In other cases, youth participation is interpreted as having fundamental impact on the raising of young people as citizens, and the focus lies on giving young people the opportunity to have genuine influence and decision-making power in the design and implementation of the intervention (Nordin et al., 2010; Simovska, 2007). While the former examples may still be

considered forms of participation, it is the latter that represents true participation, and the ideal form that should be aimed for within health promotion work, in the school setting and other arenas (Bruun Jensen & Simovska, 2005; Simovska, 2007).

Maager and Nowak (2012) point out the need to distinguish collective participation and individual level participation. While both have importance, the mechanisms to achieve participation will differ. The current thesis focuses on the collective form of participation. Collective participation in schools may range from one-off consultation of students through, for example, surveys or questionnaires, through working groups, or through the on-going participation in student councils. Orme et al., (2013) suggests that students councils stem from the recognition that the participation of students in the active participation in school processes, and implementation of their ideas have significant benefits. Mager and Nowak (2012) define participation in schools as *"student involvement in collective decision-making processes at the school or class level that included dialogue between students and other decision-makers. . . [in which] students have some influence over the decisions being made and actions being taken"* (p. 40). The current thesis uses this normative definition.

Student participation brings up challenges about the degree of power and responsibility sharing between adults and students, which may vary within a project or intervention (Mager & Nowak, 2012). Several models have been developed to depict the different configurations that may exist. The following section will present two of these models.

4.2 Hart's ladder of participation

The wide and sometimes vague definitions of "participation" can make it challenging to determine the degree of participation taking place. There are several different theoretical or conceptual models of participation which can support the identification of the different degrees of participation. As one of the most influential authors within the participation literature, Roger Hart (1992) defines participation as "*the process of sharing decisions which affect one's life and the life of the community in which one lives*" (Hart, 1992 p. 5). For Hart, participation is therefore a collective decision-making process (Hart, 1992). He developed an eight-stage ladder, inspired by Arnsteins' "ladder of citizen participation" (Arnstein, 1969). Hart's (1992) model differs is that it provides a typology for identifying the degree to which young people are enabled to participate by adults or institutions. Every stage of the model describes a different degree of participation. The three bottom rungs of the ladder ascending from the three lowest levels of non-participation to the three highest levels of participation (Hart, 1992).

Despite the ladder metaphor, the model is not meant to be interpreted stepwise, instead, it provides a way to think about the different degrees of agency or participatory engagement of young people (Hart, 1992). Figure 1 visualises the eight rungs of Hart's (1992) ladder.

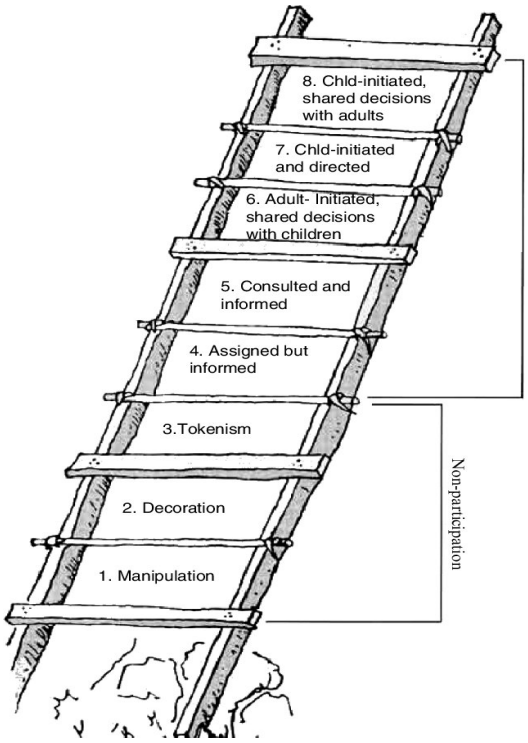

Figure 1. Hart's (1992) "Ladder of participation"

"Manipulation" is the lowest rung of the ladder. Manipulation includes situations where young people are utilized in a project as a means to an end, without them understanding the issues or the process they are involved in or their role in it. "Decoration", the second rung, is similar to manipulation and occurs when children are used as a form of decoration or placed on display to boost an organised activity. As with "Manipulation", young people have no understanding either of the activity they are involved, nor why they are involved in it. They also have no say in the organising or decisions made in the process. The third run, "Tokenism", is when children are portrayed as having a voice in a project, but in reality, have little influence about the aims, how they are communicated, nor are they given the chance to formulate their own opinions. According to Hart (1992), "Tokenism" is far more common than genuine forms of participation.

The fourth rung is called "Assigned but informed". This is the first rung of the ladder that is considered as real participation. Activities that operate at this rung have following characteristics: 1) Children have an understanding of the aims and purpose of the project 2) They know who has made the decisions about their involvement and why they are involved

and 3) They are given a meaningful role that they have volunteered for after receiving appropriate information about the project. Hart (1992) acknowledges that it is sometimes difficult to involve young people genuinely in the planning of large projects. The important part is that the young people and others know well what role the young people have and that this is not stated to be something that it is not.

The fifth rung of participation is called "Consulted and informed": there young people are consulted by adults in a way that has a high degree of integrity. This can happen where a project is designed and implemented by adults, but young people have an understanding of the process, they have the opportunity to provide their opinion on these processes, and that these opinions are taken seriously. One example Hart (1992) provides is the use of surveys designed and administered by adults to gather young people's perspective of a project. In order to be considered "Consulted and informed," young people must be informed about the purpose of the survey and consulted in the process of designing the survey questions and then given the opportunity to provide feedback on the final survey.

The sixth rung of the ladder; "Adult initiated, shared decision with adults" is where a project may be initiated by adults, but young people are included in the decision-making processes and share decision making power with adults. Rung seven is called "Child initiated and directed" participation whereby children and young people cooperate in groups and take responsibility for complex projects. Adults may provide assistance or observe the process, but they do not manage or interfere with the process. The eighth and last rung, "Child initiated and shared decisions with adults" happens where young people share decision making power, and management of a project with adults as partners. While this form of participation is rare, Hart (1992) argues that they have great value and can empower young people to engage and influence decisions that they usually are not involved in.

Hart (1992) highlights some of the limitations of the model. The model may be a narrow portrayal of the way young people can participate in their community, as it can only be applied to specific projects and interventions (Hart, 1992). The model is mainly about how adults and institutions play a part in enabling the participation of children and young people (Hart, 1992). The current study does not intend to use the model comprehensively to evaluate how participatory the pilot project is. However, it may help identify certain aspects of participation and discuss ways in which the schools can enable higher degrees of participation in the school meal pilot project.

4.3 Shier's Pathways to Participation

Shier's (2001) "Pathways to participation model" can be viewed as a supplement to Hart's (1992) ladder. Shier's model is intended to be a tool for practitioners to explore the various forms that child and young people's participation might take. An important difference to the ladder is that Shier's model does not include the three bottom rungs of non-participation ("Manipulation," "Decoration," and "Tokenism"). Rather, it ranges from young people not being involved in decision making at all, them being fully active partners in decisions (Orme et al., 2013). The model is based on five levels of participation, from the bottom:" Children are listened to"; up to "Children share power and responsibility." What is important to note is that each institution working with young people may be committed to the process of participation in varying degrees. The model attempts to highlight this by identifying three "stages of commitment" at each of the five levels. These stages are called: *"Openings", Opportunities", and "Obligations"* (Shier, 2001). "*Openings"* are when an organisation, workplace or institution (from now on referred to as institution) is ready to work at a certain level of participation. Here the institution makes statements of intent to operate at a particular level of participation, however, the opportunity may not be available yet. "*Opportunities"* is the stage where the institution is able to operate at the level of participation in practice, where certain needs are met that enable this. The last stage is "*Obligations*," which is where the the level of participation that the institution commits to operating at, becomes institutional policy. (Shier, 2001).

Figure 2 visualises the model proposed by Shier (2001). Here one can also see that at each level, Shier (2001) provides questions that an institution can ask to reflect over what stage of participation it is operating.

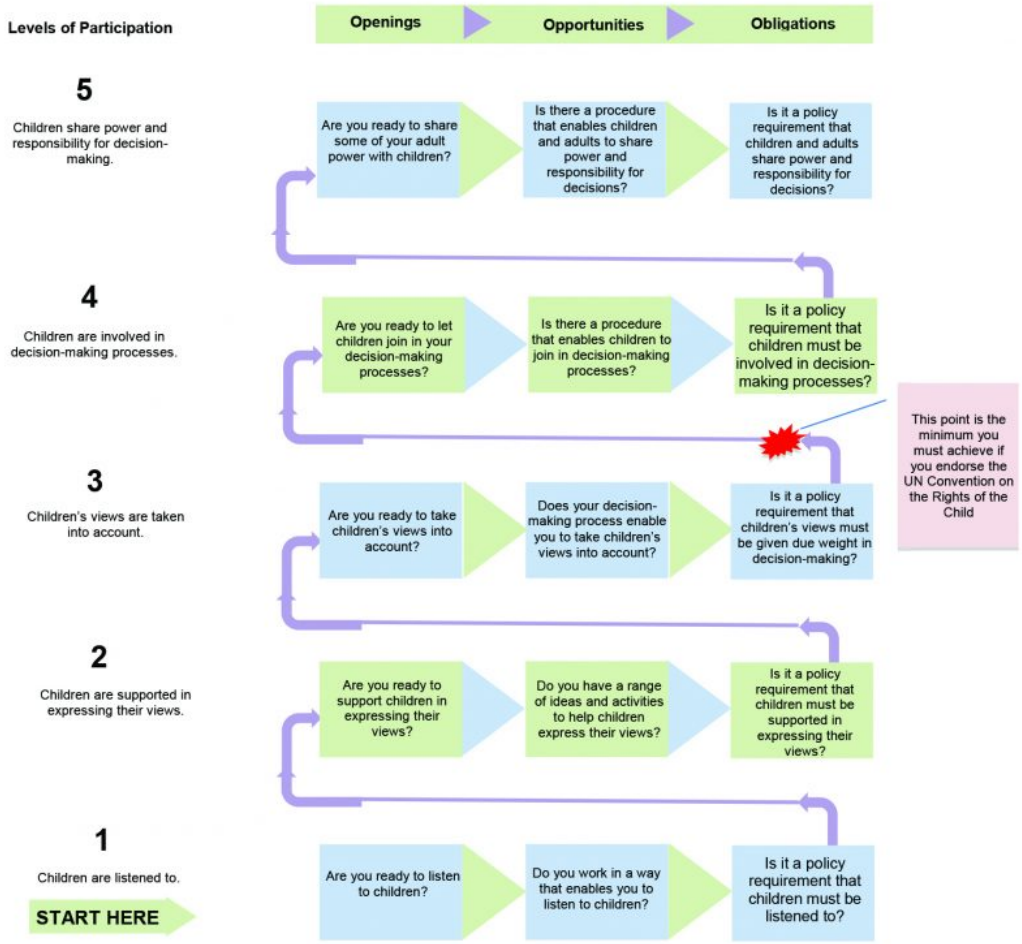

Figure 2. Shier's (2001) "Pathways to participation"

Level one of the model is where young people are listened to only when they take it upon themselves to voice their perspectives. No organised efforts are made by the institution to give young people the opportunity to express their views (Shier, 2001). There may be many reasons why young people do not voluntarily express their views openly to adults, such as cultural norms, lack of confidence, and negative previous experiences. What separates level two from level one is that an institution recognises these barriers, and takes organised, positive action to support young people in expressing their views (Shier, 2001).

Level three type of participation not only actively seeks opportunities for young people to express their views, but at this level, these views are taken into account and have an influence in the institution's decision making. It could be argued that facilitating young people in expressing their views without allowing those views to have an influence, serves little purpose. According to Shier (2001) level three is particularly relevant in a public-school setting, because any institution that has adopted the United Nations Convention on the Rights of the Child is obligated to commit to operating at level three. This level does not imply that every decision

or policy implemented must be based on what young people have expressed. Their views are one of many factors that should be considered in a policy making process. However, their views should be given due weight.

Operating at level four is where an institution has gone from merely consulting young people to actually facilitating opportunities for them to actively participate in decision making processes with adults. Level five moves from young people being involved in decision making processes to young people having actual power in the decision-making process. Here young people share decision making power and responsibility with adults (Shier, 2001).

Shier (2001) notes that an institution is unlikely to be neatly placed at one single point on the model, and they may operate at different stages, at different levels. As with Hart's (1992) model, I do not intend to use Shier's (2001) model as a stringent evaluative tool, more as a way to reflect on where the schools may be operating through different aspects of the pilot project, based on the students' accounts. I will then use the model to identify areas where the schools can work to increase the level of participation.

4.4 Review of literature on youth participation in the school setting

Within the literature on student participation there are several rationales for why the genuine forms of student participation (those at the upper levels of Hart and Shier's models) in schools is important (Bruun Jensen & Simovska, 2005). Following the Ottawa Charter (1986), mentioned earlier, participation of the target group of health promoting interventions is considered an invaluable approach to achieving objectives such as empowerment, for addressing individual lifestyles and social determinants of health (Bruun Jensen & Simovska, 2005; Griebler et al., 2017). One of the most commonly used justification for participation within health promotion has to do with the notion of ownership. In order for students to feel a sense of ownership of the health promotion objectives, they must be actively drawn into the process (Bruun Jensen & Simovska, 2005).

Ownership along with self-efficacy, knowledge, and motivation make up "action competencies." These refer to competencies, as well as attitudes and values, that allow young people to take action, and generate real-life change in relation to their own health, well-being (Jensen, 1997; Nordin et al., 2010), as well as action for environmental change (Jensen & Schnack, 1997). Action competencies are central to health promotion, and true participation are thought to be a prerequisite for developing "action competencies" (Ruge et al., 2016). From a health pedagogical perspective, student participation in health promotion not only has effects

on disease prevention and health promotion, but also on the processes that take place when students actively participate in health promotion interventions (Nordin et al., 2010).

Another rationale has to do with the effects that student participation can have on the school improvement and a project. Adolescents can offer feedback on the communication of health promotion objectives, support the shaping of priorities, as well as actively participate in delivering aspects of the project. This may influence both feasibility and acceptability of a policy, as well as effectiveness (Asada et al., 2017; Orme et al., 2013; Shier, 2001).

Here I present findings of two systematic reviews which provide evidence on the effects of student participation. A systematic review by Griebler et al., (2017) showed that active participation of students in the designing, planning, implementing and/or evaluation of health promotion measures at school, had effects on students themselves, the school as an organisation, and the social interactions and relations at the school (Griebler et al., 2017). Personal effects for student were especially prominent and increased satisfaction, motivation and ownership, increase in skills, competencies, and knowledge (action-competencies), health related effects, and positive influence on students' perspectives.

Nowak and Mager (2012) systematically reviewed the literature on the effects of student participation in decision making processes at school, not only those considered health promotion interventions. They too showed positive effects of student participation on several outcomes such as the development of life skills, self-esteem and student-adult relationship (Mager & Nowak, 2012). The findings of Griebler et al., (2017) and Nowak and Mager (2012) provide solid rational for integrating participation in activities in schools, such as the pilot project.

Some studies have also shown examples of how students can participate in school meal policies and programmes, and how they experience this process. A study by Orme et al., (2013) set out to examine the role that students play in implementing a programme to promote healthier nutrition and food sustainability awareness for primary and secondary school students in England. The approach involved reforming the way school food was procured and prepared, and involved experiential learning through growing food, cooking and farm-based learning (Orme et al., 2013). Central to the programme was the use of what they called 'School Nutrition Action Groups' (SNAGs), which actively involved students in decision making around school food policies. The researchers found that the participation took place on several different levels and concluded that fostering students' voices in the development and implementation of the

programme is crucial for health promotion in a complex school environment (Orme et al., 2013). The researches pointed out that student participation is by no means straight forward on a practical level. Authors found that students' lacked clarity about their role in the project, and that staff had concerns about the complexity, unpredictability and increased resources requirements. Similar challenges were also highlighted in some studies in the review by Griebler et al (2017). Nonetheless, engaging students can contribute to achieving a sustainable, whole school approach (Orme et al., 2013)

In the Swedish study by Colombo et al., (2021) students highlighted the lack of stakeholders' involvement in the planning and implementation process as a barrier to achieving dietary change towards more plant-based eating. Students were consulted on what food they wanted in the canteen, but they experienced that these wishes were not listened to. The authors underlined that involving a wide range of stakeholders, from students to school administration, in the change process is crucial to the successfully implementing more climate friendly school meals (Eustachio Colombo et al., 2021).

The report by NIPH (Kolve et al., 2022) also aimed to have a degree of student participation, where students took part in the implementation of the meals through preparation, serving and clean up, but not in any design aspects of the intervention. While several students were positive to participating in the implementation of the new school meals, this was not without challenges. Some students found it to be unfortunate that they had to spend time preparing food which took time away from other subjects. Also, some felt that the responsibility should lie on the adults to prepare the meals, and some felt it unhygienic for their peers to be working with the food. (Kolve et al., 2022). Authors suggest that it may be more achievable to involve students in the development of the menu, and serving and clean up, than in the actual preparation of the meals. They further highlight the potential to connect the school meal scheme with other school subjects, or with the three interdisciplinary themes in the national curriculum (The Norwegian Directorate for Education and Training, 2020). The canteen could be used as an arena to strengthen the focus on practical skills in teaching (Kolve et al., 2022).

These studies point out that participation may occur at different levels within school activities, with varying effects. As Hart (1992) argues, young people will vary in the level of participation they want, and how they experience their participation. The literature shows that participation

is important for the many reasons mentioned above. Therefore, I looked specifically at participation in the analysis of the data.

5. Methods

This chapter will describe the research methods used in the thesis. Section 5.1 will describe the study design, where the qualitative approach. Section 5.2 will describe the two school settings where data collection was carried out. Following this, section 5.3 describes the participants and how they were recruited. Section 5.4 provides a description of the interview guide and procedure used to collect data. Section 5.5 provides a detailed description of the transcription and thematic analysis carried out. Section 5.6 presents the ethical considerations that were made. Lastly, section 5.7 will present reflections on my position.

5.1 Study design

This study employed a qualitative research design to explore the experiences of students as key stakeholders of the "Free schools and sustainable canteens pilot project", particularly with respect to sustainability and participation. Qualitative methods are empirical research methods that involve the systematic collection, analysis and interpretation of data (Ponterotto, 2005). Qualitative methods are rooted in interpretive paradigms with roots in hermeneutic, phenomenological philosophy and social constructionism (Malterud, 2017). What qualitative research methods have in common is that they all aim to explore the meaning in different social and cultural phenomenon, where the subjectivity is central to these approaches (Malterud, 2017). Individuals construct meaning through their interaction with their world and qualitative inquiry endeavors to understand people's meaning making of experiences or a phenomenon, in a particular context and point in time (Merriam, 2002). This thesis used a qualitative approach, because of the exploratory nature of the research questions and desire to understand students' subjective experiences. The qualitative research process is often an inductive, reflective and iterative process and requires the researcher to be flexible in the research design, and aims for rich and deep description, which is in line with the objective of my thesis (Maxwell, 2012). To collect data, I used focus group interviews, which will be described later in section 5.4.

5.2 Setting

The two school settings, Ål school and Kalnes school, where data collection took place, will be briefly described below. Information about the schools was gathered through informal conversations with Matvalget employees and a contact person from Viken county municipality, along with internal documents from Matvalget, and both schools' webpages. Permission to use this information has been given. These two schools have the following characteristics in common:

- Both schools have fully implemented the "Free school meals and sustainable canteen's pilot project" for at least six months.
- Both schools were ranked in the top three of the 13 pilot schools in terms of implementing the pilot project components
- Both schools serve a free meal five days a week and are doing well in terms of achieving the goals set for organic food procurement as well as following the Heath Directorate guidelines.

It was deemed that the exposure over a longer period, with the pilot projects components being implemented to a high degree, would provide greatest insights to answer the researcher questions. One other school also had similar chracteristics (Sørumsand upper secondary school), however, due to my project coordinator role in this school (to be discussed in section 5.7), and time constraints, it was deemed more suitable to only recruit students from Kalnes school and Ål school.

Schools were recruited through a contact person at Viken county municipality who sent an invitation to the principals at the schools. The invitation included a detailed information sheet explaining the aim of the study, details of what participation would entail for the school, and how the results would be disseminated (See Appendix A). After receiving positive response from both schools, the way of recruiting students, suitable interview dates, time and place was agreed upon.

The two schools differ in some characteristics such as their size, the type of school, and the demographics of the area which they are located. The way each school has chosen to implement the pilot project also varies. The differences between the schools helped to get access to more diverse experiences of the students than one school could provide. The context of the two schools will be presented in further detail in the following section.

5.2.1 Ål upper secondary school

Ål upper secondary school is located in the municipality of Ål in the North-West part of Viken with a population of about 4,626 people (Wikipedia, 2022a). The school has about 275 students. The school offers study courses in nature use, building and construction, electrics, technical and industrial production, health and social sciences, service and transport and study specialisation (Vikenfylkeskommune, 2022a). The nearest grocery store is around 1,2 km from the school campus.

The school has stated that the purpose of serving free school meals is to give students healthy food, be able to maintain concentration, better school results and less traffic to the city center (Matvalget, personal communication, 2022). The school want a healthy and sustainable canteen with food that the students like, and the school is preoccupied with participation and listening to the students. Ål school has been serving free school meals since spring 2021; all students have a free breakfast and free lunch offer 5 days a week. The canteen no longer has food or drink for purchase. Ål upper secondary school is the only school in Viken which offers both free breakfast and lunch to all students every day, which has been made possible due to additional funds from the county municipality. They use a buffet solution for both meals where students are free to serve themselves as much as they want. The free breakfast consists of dry cereal with milk and plant-based milk options to add. On Mondays and Friday lunch consists of grain buffet with the option of yoghurt and toppings, or porridge. On Tuesday, Wednesday and Thursday lunch consists of a salad buffet with varied components such as vegetables, legumes and grains. The canteen does not offer beverages other than water, tea and hot water. The school reports that about 175 students (63,6% of the total amount students) participate in the free school meal offer every day.

5.2.2 Kalnes upper secondary school

Kalnes upper secondary school is located in the municipality of Sarpsborg, in the south east region of Norway, with a population of about 58,000 people (Wikipedia, 2022b). Kalnes school currently has around 431 students (Vikenfylkeskommune, 2022b). The school started as an agricultural school and was at one point one of the country's largest agricultural schools (Vikenfylkeskommune, 2022b). It has around 1450 acres of cultivated land which is operated organically and produces various crops for the schools' farm shop. The school also uses this school farm as a learning arena with focus on modern farming techniques. Today, the school offers teaching in sports subjects, hairdresser subject, flower subject, interior and display

design, building and civil engineering, nature management, agriculture and gardening, horse and animal subjects, an adapted department for special education, and agronomy for adults. The nearest grocery shops are about three kilometers from the school campus.

The school has stated that they wanted to participate in the free school meal and sustainable canteens pilot project to give the students a good starting point for good learning (Matvalget, personal communication, 2022). The student council was consulted from the start of the project and it was determined that most students wanted the school to offer a free lunch (Matvalget, personal communication, 2022). The school has been serving free school meals since the start of spring 2021. For logistical reasons, they chose a model where half of the students have free breakfast and the other half have free lunch whereby, they rotate weekly. They have two hot buffets where a canteen employee serves portions to each student. The free breakfast consists of porridge and a simple canteen offer for those who want to purchase food. The free lunch is usually a hot meal. Those who do not have free lunch that week can purchase baked goods with different types of spread, something from the salad bar or the warm dish of the day. The canteen also has free fruit which students can help themselves to any time of the day. The canteen also offers soft drinks, juices, water and various dairy products.

The canteen staff try to use produce from their own production and from local farmers. They get a lot of vegetables and honey from the school farm and are working to strengthen the collaboration between the school farm and the canteen for greater utilization of these resources. The agricultural production at Kalnes school is organic apart from the pig farm. Increased consumption of self-produced goods thus promotes both the goal of 30% organic and increased local procurement, one of the goals of the pilot project (see section 3.9). In an attempt to measure food waste, the school developed a QR form where the students can weigh their food waste, scan the QR code with their phone and record this data. The same online form also provides students with an opportunity to give feedback on the meal that day. I was unable to obtain information about how many students use the free meal offer on a daily basis.

5.2.3 Current status on project targets for both schools

Every quarter, Matvalget carries out a procurement analysis at each school to evaluate where schools are in terms of implementing criteria set for the pilot project. Table 1 shows data from the final quarter of 2021. This data was retrieved from Matvalgets internal documents. Ål upper secondary currently ranks top of all the 13 schools in terms of achieving the pilot projects

criteria. Kalnes upper secondary ranks third. Viken has set no specific quantitative targets for the criteria other than having an organic food percentage of minimum 30%.

Table 1. Status of project targets for Kalnes school and Ål school (Personal communication, Matvalget, 2021)

	Kalnes school	Ål school
Organic food percentage (target of 30%)	20%	64%
Food considered 'within' Health Directorate Guidelines	68%	83%
'Food to limit' Health Directorate Guidelines	26%	17%
Food considered 'outside' Health Directorate Guidelines	6%	0%
Whole food percentage	41%	75%

5.3 Sampling and recruitment of participants

Participants in qualitative research are often purposely chosen based on common, relevant characteristics or experiences that have the potential to provide rich, relevant and diverse data appropriate to the topic being investigated (Thagaard, 2018). Purposive sampling also allows the researcher to choose participants based on available time and resources (Thagaard, 2018). The current study used purposive sampling to recruit first and second year upper secondary school students, whom were class representatives or student council members. These were both deemed to be able to provide the appropriate insights, as well as being the most accessible students for recruitment. Student councils are set up in order to ensure that students can have a voice in decisions made in the school and participate in democratic processes (Griebler & Nowak, 2012). Discussion of strengths and limitations of only recruiting this group and not 'typical students'' will be presented in section 7.5.1.

Some inclusion criteria for the selection of students were defined before recruitment. Students were to be 16 years or older, so as to be able to consent without their guardian's consent (Fossheim et al., 2013). The "ideal" number of participants in a focus group varies depending on the context, but Krueger and Casey (2002) recommend six to eight participants which they deem is enough to generate diverse ideas, but not too many that it hinders participants from sharing their views. This study aimed to recruit six to seven participants per focus group interview, an amount which was deemed a manageable one for an inexperienced interviewer,

like myself. Homogenous groups are recommended when interviewing children and adolescents (Hoppe et al., 1995) therefore, students were split into two separate group: six to seven first year students (VG1) and six to seven second year students (VG2) at each school. From this point forward these will be referred to as VG1 and VG2. A mix of girls and boys were aimed for, as well as a mix of students from different lines of study, to provide broader scope in perspectives.

Students were recruited by key informants at the two schools, based on these criteria. At Kalnes school, all class representatives were invited which was a total of 16 students, eight from each year. This was done to provide a buffer in case some students could not participate, especially considering the Covid-19 situation. Even if all eight students had participated, this amount is not considered to hinder participants from sharing their views (Krueger & Casey, 2002). An invitation in an internal Microsoft Teams channel was sent to the chosen students at the end of January 2021 by the head of education at the school. Brief information about the study, the time, date and location of the interviews, was provided, and the students were given the opportunity to consider their participation some time before the interviews took place. 14 students confirmed that they would participate in the focus groups, but, due to last minute drop out, a total of nine students participated from Kalnes school: five first year students (two girls, three boys) and four second year students (one girl, three boys), all between age 16 and18years. Participant dropout is a common challenge facing qualitative researchers (Thagaard, 2018).

At Ål school, students were recruited through the school principal and an employee from the school administration. Class representatives and student council members were approached during class on the day of the interview and asked to go to the specific room in the school. The students had little time to reflect and consider their participation before entering the interview room. Nonetheless, as described later, the students signed consent forms and participation was voluntary. A total of 14 students participated in the focus groups.: seven first year students (four girls, three boys) and seven second year students (two girls, five boys). All participants aged between 16 and 18 years. Two students said that they were also members of a special "canteen project group."

Table 2 shows number of students, their gender and their study course. When signing the consent forms, students were asked to fill out how many days a week they use the free school meals at their school.

Table 2. Participant characteristics and average number of free school meals consumed per week

ÅL	Number of Participants	Study Courses	Average free school meals consumed weekly
GIRLS BOYS	7 7	Health and social science, Electrics, Building and Construction, Technical and Industrial production	2,1 2,7
TOTAL	14		2,4
KALNES			
GIRLS BOYS	3 6	Hairdresser, Horse and Animal, Interior and Display Design, Building and Civil Engineering, Nature Management, Agriculture and Gardening, Sports	4,5 4,4
TOTAL	9		4,5
TOTAL (both schools)	23		3,4

*students at Ål report being on internship several days of the week which may explain the difference

5.4 Data Collection

5.4.1 Focus group interviews

Four focus group interviews were carried out, two at Kalnes school and two at Ål school. Focus group interviews have several advantages that made them an apt choice for this study. Focus group interviews are a method that deliberately utilises participants interaction to generate data (Kitzinger, 1995). In focus group interviews, participants are encouraged to talk to each other, exchange experiences and comment on what other participants say, unlike group interviews where each participant responds to questions in turn and addresses the researcher. Focus group interviews are especially valuable when aiming to explore knowledge, experiences and attitudes towards a phenomenon shared by a group (Krueger & Casey, 2015; Malterud, 2017), as in the case for the students taking part the Viken pilot project. Focus group interviews allow the researcher to tap into other forms of communication, such as disagreement, humour, and consensus, which may tell more about people's knowledge and experiences than merely reasoned responses to direct questions (Kitzinger, 1995). They may also have the sampling advantage of encouraging participation from individuals who may have been reluctant to partake in an individual interview or encourage active participation in discussion from individual who may have been unresponsive in individual interviews (Gibbs, 2012). This can also go the other way, where the group dynamic may in fact be a barrier to accessing deviating

opinions in the group (Malterud, 2017). It is important that the interviewer facilitates the discussion and tries to create a space where everyone gets a chance to respond (Kitzinger, 1995). I tried to strike a balance between letting the participants steer the discussion in a direction they wanted, and at the same time asking questions that were relevant for the research questions. During some of the interviews, some participants were less willing to discuss amongst each other, and I ended up asking many questions and getting shorter, direct responses to me. The implications of this will be discussed further in section 7.5.2.

5.4.2 Interview guide

A semi-structured interview guide (see Appendix B) was developed for the focus group interviews, consisting of a list of topics with predetermined questions. The following topics were intended to capture experiences relevant to the research question:

1. General experiences of the "Free school meals and sustainable canteens pilot project"
2. Views on food and diet sustainability
3. Experiences regarding students' participation in the pilot project

The interview guide functioned as a support tool which was particularly useful considering my inexperience with conducting interviews. Previous studies exploring student perspectives particularly within the topic of school meals and participation, inspired some of the questions included in the guide. Authors of these studies (Eustachio-Colombo et al., 2021, Illøken et al 2021) were contacted and copies of their interview guides were provided. Relevant questions from these interview guides that were relevant were translated from Swedish to Norwegian in the interview provided by Eustachio-Colombo et al., (2021).

The semi-structured nature allowed for participants to elaborate or reflect on what they found the most interesting or important. Keeping questions open-ended was central, rather than having a rigid structure. This flexibility meant that the order of questions changed as the interview progressed, and it also made it possible to adapt questions to the different groups and interview situations (Malterud, 2017). The first questions in the guide, such as "what did you eat today?" were intended to get the participants "warmed up," by asking something that everyone could answer.

My internal supervisor from The Norwegian University of Life Sciences (NMBU) and my external supervisor from NIPH provided feedback for revision on the guide. The guide was also sent to one of the project leaders at Matvalget who provided feedback, leading to further revision. This was to ensure the quality of the questions, and their relevance to the research questions.

5.4.3 Data collection procedure

The four focus group interviews lasted between 45 minutes and 1 hour. Two focus group interviews were carried out during school hours in a meeting room at Kalnes school on the 26th of January 2022. The two focus group interviews at Ål school were carried out in a meeting room at the school on the 18th of February 2022. All interviews were audio recorded.

It is recommended that focus group interviews are carried out by a moderator with the assistance of a co-moderator (Krueger & Casey, 2015). I carried out the focus group interviews at both schools and had a co-moderator for both focus group interviews at Kalnes school. The co-moderator was a fellow master's student in the public health programme at NMBU. I intended to have a co-moderator at Ål school, but unfortunately the person fell ill the day before and it was not possible to get a replacement. This may have led to some limitations which will be discussed later in the section 7.5.2.

The physical setting of interviews can also influence participants feeling of comfort, and thereby their willingness to openly share their views (Krueger & Casey, 2002). Before the participants arrival, chairs were placed with one meter spacing around an oval table, and information sheets were placed on the table in front of each chair. I tried to place myself at the end of the oval shaped tables so that I could see all students. Placing students around a table rather than in a straight line, was done so that students could also see each other when discussing. Fruit and nuts were placed on the table for the participants to eat. From the time the participants arrived, I (and the co-moderator at Kalnes school) engaged in small talk with the students. Jokes were made when suitable and the I intended to strike a balance between a professional setting and relaxed, more casual one. Setting this tone was hoped to lead to increased flow in the focus group discussions and promote greater self-disclosure from participants (Krueger & Casey, 2015).

Before commencing the focus group interviews, students were asked to read through the information sheet provided and sign the informed consent form (see appendix C). I verbally informed the students that they could retract their consent at any time before, during or after the interview, something which was also written in the information provided in the form. Students were informed about the format and approximate length of the focus group interviews,

and were encouraged to discuss among each other, rather than addressing me, when possible. Once ethical and practical aspects were covered, the interviews commenced.

As the main interviewer, I facilitated the conversation, asking the questions in the interview guide and probing questions. When participants answered questions, or had a discussion between themselves, I used a validation technique whereby I shortly summarized what they had said to ensure that I understood it the way it was intended. Being from Denmark, I spoke in Danish, but used as many Norwegian words as possible to make myself more understandable to the participants. The participants responded in Norwegian. At Kalnes school the co-moderator acted as an observer, took notes and kept track of whom was speaking by noting the first few words down. These notes were utilised during the transcription process. In some cases, the co-moderator asked complementary questions or provided translation from Danish to Norwegian when the participants struggled to understand the question asked. After each interview, the recordings were stopped, and the students were asked to share their reflections and experiences of the interview process. Participants were also asked if they had any questions or further remarks. Participants were again reminded of how they could retract their consent and how they could contact me. They were then thanked for their time. When participants had left the room, the co-moderator at Kalnes school provided feedback on my interviewing technique, and suggestions for rephrasing of certain questions that were incorporated into the next interviews.

5.5 Data analysis

5.5.1 Transcription

According to Kvale and Brinkman (2015) transcription is the "weakened decontextualized renditions" of real-life interviews. Verbatim transcription is the process of transforming spoken language word-for-word into written form (Malterud, 2017). The focus group interviews were transcribed semi-verbatim whereby pauses with words such as 'errm' and 'ummms' were omitted, as well as some false starts. Pauses were marked using three dots. Commas and full stops were used when it seemed appropriate. Some filler words, broken sentences and repetitions were kept, remaining true to the dialogue. The omission of some of these was to make the transcript more readable without changing the meaning or structure of what was said (Kvale & Brinkmann, 2015). At the same time, this method of semi-verbatim transcription is timesaving. By reducing the amount that is transcribed, while staying within the aims of the

study, the researcher can have an easier time during the data analysis process (Kvale & Brinkmann, 2015). It was discovered that the audio recording of the second focus group interview at Kalnes school was distorted, which made it difficult to hear everything the students were saying. This resulted a transcription with more omissions and 'inaudible' parts. However, I was still able to understand most of what students were saying.

As mentioned, the interviews were carried out in Danish and Norwegian. This meant that most of the audio recording was in Norwegian. However, due to my ability to fully understand spoken Norwegian, this was not deemed problematic. When it came to transcription, despite having the intention of transcribing in Norwegian, it became clear that this was a difficult task, and many words were naturally spelled in Danish. The phrasing and the structure of the sentences were kept in Norwegian format. Considering the similarities between Danish and Norwegian, this mixed use of spelling was not deemed to have changed the meaning or structure of language. In the final reporting of the findings, quotes have been translated from Danish/Norwegian to English. A peer student from the NMBU public health master's programme reviewed the translated quotes to ensure that they were as close to their original meaning as possible.

5.5.2 Thematic Analysis

Interview transcripts were thematically analysed using Braun and Clarke's (2006) six phase framework. Thematic analysis is a method for identifying themes or patterns in and analysing and reporting of qualitative data (Braun & Clarke, 2006). Braun and Clarke's (2006) framework was chosen due to: i) its potential to provide rich and detailed data account; ii) its flexibility in that it is not tied to one particular epistemological or theoretical perspective; iii) its clarity and accessibility for researchers of all levels (Braun & Clarke, 2006, 2013). Thematic analysis can take several forms. Data can be analysed both inductively and deductively. The current study used a combination of inductive and deductive analysis. An inductive approach to analysis can be considered 'bottom up', whereby the identified themes are strongly linked to the data itself (Braun & Clarke, 2006). A deductive approach to data analysis, is driven by the researchers' theoretical or analytic interests (Braun & Clarke, 2006). This, along with the six-step analysis procedure, will be explained in the following section.

5.5.3 Thematic analysis procedure following Braun and Clarke (2006) six steps

1) The first step was to become familiar with the data. Here transcripts were read and re-read. Comments and ideas for preliminary codes were made using the 'comments' function in Microsoft Office. Some ideas were also written down on a separate sheet of paper.

2) Then initial codes were generated. In qualitative data, coding is defined as the process of indexing and categorising the data to generate similar themes, concepts or ideas (Braun & Clarke, 2006). A code is a description, not an interpretation, where semantic analysis is most dominant. Semantic analysis is where the researcher focuses on the surface and explicit meaning of what is said (Braun & Clarke, 2006). Here, I tried to remain free of theoretical interests and analytical preconceptions by staying as close to the data as possible, coding most text even if it was not directly linked to the research question. While this is considered 'data-driven' it should be noted that it is impossible for a researcher to be completely free from their theoretical and epistemological binders (Braun & Clarke, 2006). Figure 3 shows an insert from one of the transcripts which exemplifies how the first phase of coding was done. Here, I used the 'comment' function in Microsoft Word

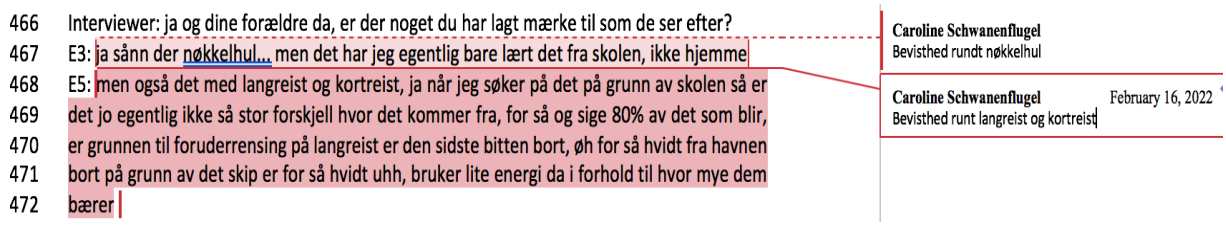

Figure 3. Example of initial coding phase of transcripts in step 2 of Braun and Clarke's (2006)

3) After the initial inductive coding, the transcripts with codes were reviewed again, now paying more specific attention to the research questions and the theoretical framework centered around participation. Here I used theory and previous research to code for certain themes, moving beyond the obvious meaning in the data (Clarke et al., 2015). This can be considered a more deductive approach to analysis (Braun & Clarke, (2006). This stage involved searching for patterns or themes in the generated codes across the different interview transcripts. Sub - themes, were formed, which are broader than codes and involve active interpretation of the codes and the data (Braun & Clarke, 2006). Here, I looked for latent meanings of the codes. Latent analysis focuses attention on the underlying meaning of the data (Braun & Clarke, 2006). Here I looked beyond what participants were explicitly saying and what they may not have been aware of and interpreted their words with reference to certain world views, assumptions or frameworks (Braun & Clarke, 2006). These subthemes were then placed into

larger, main themes. Main themes were formed that closely related to the three research questions the study set out to answer. This whole process was done manually, using a Microsoft Excel sheet to organise the codes and corresponding quotes. Several "mind maps'" were also drawn on paper throughout the process. Table 3 exemplifies how extracts from the transcripts went from codes, to subthemes, and then to main themes.

Table 3. Example of Thematic Analysis process

Extract (Quote)	Code	Subtheme	Main Theme
'Det (bærekraft) er jo sikkert vigtigt men så er det noget med at vi ikke tænker så mye over det, bryr sig ikke så mye.'	Acknowledges sustainability but not important for own choices	"Sustainability is important, but I don't think about it that much"	Students' views on components of food sustainability
'Dem har aldrig sat sig ned og taget sig tid til at have en forlæsning om hva projektet indebærer ligsom, dem har bare forventet at vi skal vite det og indrette os efter det'	Missing information- but certain expectations of students	Knowledge of the aims and and conditions	Degrees of participation
'og så avslår de med en gang… at de ikke vil høre hvad vi tænker om'	Does not feel listened to	Listening to students and involving them in decisions	Degree of participation

4) The themes were reviewed and refined several times. Extracts from the transcripts that were related to the codes were reviewed several times to ensure that they supported the themes.

5) Themes were further refined and renamed. Ongoing analysis to refine the specifics of each theme and the overall story that the analysis tells, was carried out. This was a step that continued throughout the thesis writing process, and the names of themes were changed up until the very last draft.

6) The final step involved producing the report whereby the themes and their description were presented, with quotes that illustrated the themes. All quotations used were translated from Norwegian to English, staying as close as possible to the original quote.

5.6 Ethical Considerations

5.6.1 Ethical and personal data processing guidelines

This study was carried out in line with the Helsinki Declaration which sets out the necessary ethical considerations in research involving people as subjects, including personally identifiable data (Malterud, 2017). The study gathered information on the students' name, grade level, and recordings of their voice. Furthermore, participants personal data and confidentiality was managed in line with Norwegian Privacy Act and guidelines of the Norwegian center for research data (NSD). NSD was notified about the study and how personal data would be accessed and handled. NSD recommended the study on 19 November 2021, before any data collection took place (See Appendix C).

5.6.2 Informed Consent

According to Thagaard (2018), the three most crucial ethical principles when conducting research are informed consent, confidentiality, and an assessment of the potential consequences that come with participating in the research. As mentioned in Section 5.4.3, before taking part, participants were provided with an information sheet and asked to sign a consent form after reading it. It was also be made clear that the results of the study may be published through a scientific journal, as well as be shared with NIPH, their own school administers, and other parties with an interest in the findings. They were ensured in writing and verbally that their names would not be used in the transcription or the reporting of the findings. While I tried to remove all identifying characteristics in the reporting of the findings, the school administration, who are aware of who participated, may still be able to partly connect things participants said, to a particular participant. Making this clear to participants was intended to increase the trust between the researcher and the participants, enhancing their feeling of safety and ability to speak freely (Kvale & Brinkmann, 2015). The consent forms were kept in a file in a drawer in my apartment.

5.6.3 Recording and Storing Data

The focus group interviews were audio recorded using a digital voice recorder (Olympus VN-541PC) with the permission of the participants. Dictaphone recordings are considered “red data” and were therefore handled carefully. Recordings were stored on a password protected NMBU area OneDrive (Office 365). The transcripts produced from the recordings were also stored on the NMBU OneDrive.

5.6.4 Confidentiality

Confidentiality was ensured through anonymizing the participants in the transcripts. Students were given codes which were the letter E ("elever", students) and a number. I made a key to identify which code belonged to which students. The key was kept separate from the transcripts. Any identifying information that was said during interviews were removed in the transcripts and presentation of the data. It is important to note that focus group interviews by nature cannot ensure confidentiality because group members hear the discussion, even if they do not share it beyond the group. Furthermore, because participants were recruited through third persons at each school, their identities are known to these people, although what was said in the interviews cannot be traced back to a specific participant. This may be particularly problematic when the topic of the research is sensitive (Gibbs, 2012). The topic of this study could be considered of a low level of sensitivity and the students did not share information that was deemed personal or sensitive.

5.7 Researcher's position

Within qualitative research, researcher reflexivity is deemed essential (Malterud, 2017). The choices made as to what method is used, how the data is collected and analysed, choice of theories, and discussions are all led by the researcher, and these may be influenced by the researchers' background, position, relationship to the participants, values and underlying beliefs. As a researcher I am a participant in the field that I am collecting data in (Skjervheim, 1960, as cited in Malterud, 2017). However, within quantitative methods, one would try to eliminate all forms of bias or 'subjectivities', as they are deemed to render the research flawed. Whereas within the qualitative approach, instead of viewing bias or subjectiveness as something to be removed, the researcher should identify, acknowledge and reflect on them and how they may shape the whole research process. Some authors within the field even view biases or subjectivities as virtuous, and a central tool for deriving knowledge (Peshkin, 1988 as cited in Merriam, 2002).

A central part of my reflexivity in the current study has to do with my position at the organistion Matvalget, which plays a central role in the Viken pilot project (see section 3.9). During the spring of 2021 when I was exploring my chosen research topic, I came across the organisation. Based on my passion for food and food systems, I was immediately inspired to reach out to

Matvalget, and in August 2021 I started a part time internship at Matvalget. Here I gained further insights into in the Viken pilot project. It was also during this time that I joined a colleague on one of his visits to Kalnes school, where he provided guidance in planning and implementation of the pilot project. My internship role consisted mainly of supporting the organisation in practical tasks, and shadowing project leaders. In February 2021 my internship turned into a part-time paid employment. Here I was given the task of coordinating activities, mainly related to a participatory project at Sørumsand upper secondary, who is also part of the pilot project. I have been employed by Matvalget for the entirety of the master thesis writing process.

This job has clear implications that in many ways have strengthened my thesis. I have had access to much of the information about the pilot project provided by Matvalget's internal documents, along with personal communication with colleagues. The decision to recruit students from Kalnes and Ål schools was also made based on information provided by Matvalget. It is important for me to be clear that I have neither worked directly with the two recruited schools nor interacted with students at them prior to the research process. I was presented as a master's student from NMBU to the school administrations and the students, rather than a representative from Matvalget. The thesis itself should also be seen as a reflection of my academic position and not as part of my role at Matvalget. I made it clear to students that I was not in a position to ensure changes were made based on what they said. This was an attempt to try to manage any expectations they may have had.

However, there were some implications connected to this role that at times made it difficult for me to have a foot in both camps. Challenges particularly arose when I was working with the data collection and analysis. I was surprised to find many negative views voiced by the students because I had the impression that because pilot project components were being implemented to a high degree, students would be very positive to the pilot project. When this turned out to be different to my expectations, I struggled to know how to deal with it. On the one hand, I am invested in making the pilot project a success. I truly believe that the many diet and sustainability components of the project, and the enthusiasm and support that it receives from stakeholders inside and outside the schools, has great potential to improve the current school meal situation in Viken, and potential on a national level. This made it was a difficult task to report the findings that were in conflict with this belief. I wanted the thesis to shine a light on how great the pilot project is. However, I have tried my best to remain true to the data. I think it is clear when one reads the findings that I have tried to show these converging viewpoints.

Another aspect I want to reflect on is my view of youth participation. I wrote my bachelor thesis on participation among young people with disabilities. I went into the current research process expecting to find a low level of participation, and a power imbalance between students and adults. These preconceptions were also shaped by my previous experience of working with young people in organisations like Red Cross, Nabolaghager and the Child Welfare Services. I would say I have a kind of 'sense of justice' when it comes to young people. These preconceptions of the often-rhetorical state of youth participation influenced my choice of research question, the theoretical framework, the method and my interpretation of the results. This may also have come out in the interviews in the way I supported young people's views, and how I asked questions. Nonetheless, this was something I reflected on often, both to myself, with colleagues and with my peers. These reflections allowed me to report on the findings from the view of the participants, and not my own. My understanding of this topic was also a strength which allowed me to pick up on things that the students said and quickly adapt during data collection. Furthermore, my previous experience with young people supported my ability to build rapport with the students.

6. Findings

In the following chapter, the findings from the thematic analysis of the four focus group interviews will be presented. Three main themes were formed and seven subthemes. Table 4 shows an overview of these. Quotes from the interview transcripts are used to illustrate findings. A detailed presentation of each theme and subtheme follows.

Table 4. Themes and subthemes

Themes	Subthemes
Students' views on the school meals and the canteen food	School meals deviate from students' food preferences
	"Free food is free food"
	Varied understanding of sustainability

Students' views on components of food sustainability	
	"Sustainability is important, but I don't really think about it"
	Making efforts to reduce food waste
Degree of student participation	Knowledge of the aims and conditions of the pilot project
	Listening to students and involving them in decisions

6.1 Students' views of the school meals and the canteen food

This first main theme is about how students view the free school meals and more generally the food available in the canteen after the pilot project implementation. Two subthemes emerged under this main theme. The first; "school meals deviate from students' food preferences" is about aspects such as the taste, quality, appearance, and variation of the food offer and the implications this had on students' food behaviours. The second subtheme; "free food is free food" has to do with students'' views on food that is free, and the expectations they have towards free food.

6.1.1 School meals deviate from students' food preferences

Food preferences in terms of taste, smell, appearance, familiarity and variation were found to play an important role for how the students' satisfaction with the meals, their use of the school meals, their food choices, their purchasing behaviours outside school, and their food waste behaviour. Taste was highlighted by all students as being the most important factor influencing their daily food choices. However, many students conveyed discontentment with the quality, taste, and variation of many of the school meals, and the food offered in the canteen, after implementation of the pilot project.

Factors such as seasoning and overall flavor were felt to be unfavorable to students and sometimes food items were unfamiliar to students. Some students argued that some types of meals served and some of the flavours were not suitable for young people, and that the

combinations were only palatable for adults. Food items mentioned in connection to this were certain grains like barley grain, and legumes that the students were not used to eating, as well as the lack of meat in the meals. At both schools there was a reoccurring discussion around the porridge that was served. It was described as having a "gooey consistency" on some days and being "cement like" on other days. Students said that they needed to use excessive amounts of sugar and cinnamon on the porridge in order to be able to eat it. It was not that they did not like porridge in general, they just did not like the porridge served at school. Low variation in the offer, with many of the same foods being served every week, was also brought up by several at both schools:

> *"Yes… it is in a way… it should be healthy and nourishing… but in a way .. it is difficult when the food does not taste good ... because when you have porridge every day…[]for several weeks, then you will be bored and like, it will not be tempting to eat it anymore… then it will be either to drop the food or eat that packed lunch you brought"* (Girl, Ål VG1)

It is important to note that not all students were as dissatisfied with the meals as others. Several gave examples of specific meals they liked the taste of, such as the taco, yoghurt bar, fish and potatoes. And some of the students, particularly boys at Kalnes, reported eating the school meals five days a week. Two students below said they enjoyed eating the school meals and one had the impression that several of his peers shared similar views:

> "*And then I ate lunch here. That was actually pretty okay. It was not everything I ate, but I ate the fish and it was good. The canteen food tends to be good really." (Boy, Kalnes VG1)*

> *"So most of my class thinks the food is good. I really think the food is okay no matter what it is… except for that breakfast."* (Boy, Kalnes, VG1)

Students reported that they participated in school meals an average of 3,4 days of the week (combined average from both schools). Ål school report that 63% of the total student body eat the free meals every day. This may give indication that many students still consume meals despite some negative views being voiced. However, some students' behaviours may have changed after the implementation of the pilot project. Some students brought packed lunches, which some had started doing after the implementation of the pilot project, while others may already have had the habit of bringing packed lunches before. Interestingly, several students said that they had started bringing a packed lunch as a backup in case they did not like what was served that day:

> Boy*: "It's like, if there's something good in the canteen… as a rule I always go and see what it is .. but it's not always I take it if it does not look so good"*

Interviewer: *"but if it does not look good then what do you eat?"*
Boy: *"I usually bring a packed lunch from home just in case"*
(Boy, Ål VG1)

"Yes, so if it is porridge, for example, then it becomes… you take some pieces and then "no it was not so good anyway" and then it becomes waste. I always have a packed lunch with me so then it will be the one you eat in the end." (Boy, Kalnes, VG1)

The changes in the canteen food offer were also seen to lead to some students leaving the school to purchase food, either because they did not like the meal that day, or because they wanted to purchase things that they could no longer purchase in the canteen. An example of this was the baguettes that both schools used to sell. At Ål school, students would sometimes walk to the shops to buy baguettes, even though it was challenging to make it to the shop and back in time. At Kalnes, the shops were three kilometers away, which some overcame by purchasing on their way to school. This may indicate that when the free meals, and the general canteen food offer does not match students' preference, some unwanted effects on their food purchasing behaviour may follow, thereby hampering the initiative from having the desired effects.

Food waste was also closely linked to the students taste and general satisfaction with the meals. When students did not like the taste of meals, they threw out the rest. "Sustainable food" that does not taste good, was viewed as unsustainable because it does not get eaten and ends up as waste:

"So it is like a lot [food waste], even if it is not what they [school] want, then it will be like that in practice, then they actually throw an incredible amount of food because all ... or very many of the students eat a little, maybe they eat a little and then it tastes bad and then they will not eat it and then they end up throwing it if you know what I mean..." (Girl, Kalnes, VG1)

Many students suggested that canteen staff should try to incorporate more of foods they liked, and consider ways to improve the canteen offer, to avoid these negative outcomes. A couple of students discussed how increasing the amount of money spent on the food in the canteen, rather than on some other school activities, could be an essential measure. One student suggested how the food could be both healthy and suitable to students' preferences:

"I think the yoghurt is good… but you get tired of eating the same thing… so they could have had a kind of regular salad bar in a way, or baguettes. And it does not have to be just fine baguettes… can be with vegetables and wholegrain bread. Then it's healthy." (Girl, Ål, VG2)

However, students appeared to often have preferences for specific meals that are not considered healthy or sustainable. Several students shared perceptions of healthy and sustainable food as

tasting bad or being boring, where less health promoting food, such as pizza and kebab, was good food. For some, these perceptions of sustainable and healthy food may have been further reinforced through the school meals. One student voiced how he associated organic food with bad taste and non-organic as food that was good:

> *"It is ... everything has to taste bad when it has to be organic."* (Boy, Kalnes, VG1)

A number of students were of the impression that their school did not care about whether the meals suited the students' preferences. Instead, they perceived that health and sustainability of the food was more important than whether students liked the food. This was generally a shared experience at both schools and seemed be something that several were frustrated about. One student highlighted the importance that students' preferences have for accomplishing the goals of health and sustainability of school meals:

> *"If you are going to replace meat then since it is a health-promoting school, then it must be a very good substitute… food that tastes good, that everyone can like then… and everyone can eat."* (Boy, Kalnes, VG1)

6.1.2 "Free food is free food"

This theme highlights students' expectations of meals that are free. Students' expectations towards free meals varied. Many students were generally positive to the idea of receiving a free meal, particularly before the implementation of the pilot project. For some, the free meal lived up to their expectations. The phrase "free food is free food" was used by several students, but in different ways. For some, the phrase was used as a way to signify that free food is "good" food. In this context it seemed that good food meant "good enough to eat," but that this had more to do with it being free than the actual taste, quality, and appearance of the food. As one boy said:

> *"But then again I'm quite happy with the offer. It's free food, free food is free food, I like free food."* (Boy, Kalnes, VG2*)*

For some, the food being free meant that expectations were lower in terms of taste and quality, but that the food still needed to live up to students' preferences in order to be acceptable to all. One student appeared to associate "good food" with restaurant food:

> *"So it's a bit like that… yes its free food so you cannot expect big but, like still… it [definitely] is not restaurant food."* (Boy, Kalnes, VG1)

For others, the element of free was not enough to constitute "good food":

> *"People say that free food is good food but that is not true here."* (Boy, Ål, VG2)

"Nice idea at least… that you can get food at school for free is fine… but it is not so good food always." (Girl, Ål, VG2)

The aspect of "free" did not appear to be enough to stop all students from still purchasing outside of the school. One student conveyed his willingness to pay money for food outside of school instead of eating the free meal as a clear signal of his dissatisfaction with the school meals:

"Yes in that way it is very nice that there is free food, but um when the alternative for me is either spend 150kr a day or eat that food here and I still choose to spend 150kr on food then they [the canteen] have to somehow take some measures and make some changes to make it a little easier to choose to eat here." (Boy, Kalnes, VG1)

Some students stated that, despite often being dissatisfied with the food offer, it was still important to express gratitude for having a free meal initiative at their school. Some said they felt lucky to have this free offer. They viewed the availability of a free meal as saving them money, time making packed lunches, and gave them access to food, especially at Kalnes where food shops were at least three kilometers away from the school. A student from Ål school also voiced his gratitude:

Interviewer: *"Ok and did you feel lucky too, were you glad you got that offer?"*
Boy: *"I do not know exactly what to say but I think in a way we are a little lucky that we are allowed to try… to be the first to try it…. So we must be happy because we are the first to try it… the first to be allowed to try it and get free food and we do not have to have money and spend a lot of money on it every day*." (Boy, Ål, VG1)

One student also acknowledged the potential for free meals to improve concentration, to reduce the pressure on students with lower resources, and address social inequality, which are some of the main aims of free school meal initiatives:

"No but like you say… we do not spend money on it so it's okay for those who cannot afford as much to like… do not have lunch every day like… so it's okay that there is free food there, so that you do not starve… because it affects the concentration in the schools as well." (Girl, Ål, VG1)

At both schools several students argued that the former canteen offer was worth paying for, while if the free meal pilot project ended, they would not pay for the food offer as it is now. At Ål school, following the implementation of the free school meals, it is no longer possible to purchase any food items in the canteen. Some Ål students suggested that the canteen should also offer food options for purchase, alongside the free meal so as to give the students' the choice to purchase food they liked. The majority of the students agreed that they missed the "old" canteen and would not miss the pilot project if it ended:

Interviewer: *"Ok if the old canteen came again then most people would be happy?"*
Girl*: "yes I think so. I do not think they would miss the free school meals."* (Kalnes, VG1)

"I think they will stick to the free school food stuff… unfortunately. I liked better what was before." (Boy, Ål, VG2)

6.2 Students' views on components of food sustainability

This main theme highlights students' views on several components of sustainability in regard to food, particularly those that are central to the "Free school meals and sustainable canteens pilot project". Three subthemes make up this main theme. The first, "varied understanding of sustainability", has to do with what students considered sustainability to be in general, particularly environmental sustainability, as well as how they understand sustainability in relation to food. The second subtheme "sustainability is important, but I don't really think about it," highlights students' views on sustainability in relation to their own food choices, and how these views influence their food behaviours. The last subtheme "making efforts to reduce food waste" highlights student views on food waste.

6.2.1 Varied understanding of sustainability

As shown in the section 3.4, the term sustainability is broad, however during the interviews I chose to use it without providing a definition, letting the students define this through the discussions that arose. Students were prompted to share their perspective on sustainability particularly in relation to food and their food choices. (Example questions: *"I'm curious to hear your reflections on the concept of sustainability?" "How important is sustainability to you when it comes to the food you eat?" "Do you have any thoughts on whether you yourself are responsible for making, conscious, sustainable choices?")*

In the general sense of the word, sustainability was something all students had some knowledge of and recognised the importance of to some degree. This was not limited to food, and aspects of recycling and packaging were also brought up, although these were not elaborated on:

"It's a bit wise to think about sustainability or think about the environment and generations that come after us and then not use up everything [] but be careful to use it little by little and not everything right now but instead think a little about the environment…" (Boy, Ål, VG1)

Students were also prompted to share their perspective more generally on food production and where food comes from. (example questions: "*I'd like to hear your thoughts about how food is*

produced. What do you think about the notion of short-travelled or locally produced food?" "Are production methods something that is important to you when it comes to the food you eat?") Local and short travelled food was one of the most prominent sustainability aspects discussed, particularly by students from Kalnes. Many students were positive to choosing food that was produced in Norway in order to support the Norwegian farmers, and reduce distance traveled:

> *"No, so I could have had uhh I could have had local food, vegetables and meat from the local farmer… from here [Norway]… and general food from around the area here."* (Boy, Kalnes, VG2)

> *"Yes I have learned a lot about it [production] haha I care, but often I do not think so much about it … but I try to go for Norwegian produce and things that are from Norway that have not, how do you say… gone so far."* (Boy, Kalnes, VG1)

Some students also associated food that is produced in Norway with lower levels of antibiotic and pesticide use, which was viewed as being better for human health and the environment:

> "*Yes if it is from… yes, preferably from Norway then because then there is often less antibiotic use and drug use…."* (Boy, Kalnes, VG1)

Another student at Kalnes was more concerned about the glass packaging of the organic soft drinks that the canteen had started selling. This was something he brought up several times during the interview, where a couple other students agreed with him. This same student displayed particular understanding how food is produced and where it comes from, and its' connection to health promotion:

> *"Yes, if it is to be a health-promoting school, then it is important with organic food, and short-distance food, from the local farmer then, and it is important that food that is produced… the food that is bought by the school… that it should be local and be for everyone."* (Boy, Kalnes, VG2)

He further showed to have a nuanced and good understanding of some of the challenges that come with determining the environmental impact of food;

> *"But also with long-distance and short-distance, yes when I read about it…. you know because of the school, there is not really that big a difference where it comes from, because almost 80% of what [] is the reason for contamination in long travelled food is the last bit, from the harbor to the destination because the ship is uhh, uses little energy then in relation to how much they carry."* (Boy, Kalnes, VG1).

Organic food production was also a topic that was asked about in relation to sustainability. This did not appear to be a topic that students were enthusiastic about, and when I asked about their views on organic food, the discussions quickly went in other directions. Although some

acknowledged that organic production methods may be beneficial for the environment, several students associated organic food with being expensive and tasting poorly, as mentioned earlier in the subsection 6.1.1. At Kalnes, several students expressed negative views towards organic food, which seemed to have been due to the school meals:

> *"No I just have bad experience with it [organic] because of school."* (Boy, Kalnes, VG1)

> *"Briefly summed up for me at least I think it's a good offer, um but there are just some small things that ... you get a picture that organic is somehow not good.. but [that] there is a better alternative, it is good for the environment, but it is not good."* (Boy, Kalnes, VG2)

6.2.2 "Sustainability is important, but I don't really think about it"

While students showed awareness and knowledge of sustainability, organic and local production, and recognised the benefits of making sustainable choices, it seems that sustainability, was not something that they took ownership of, and saw these choices as being outside of themselves. Most of the students expressed that sustainability was not something they thought or cared about in their everyday life. Sustainability in general was important, but they did not connect with it on a personal level:

> *"It [sustainability] is probably important, but then there is the fact that we do not think so much about it, I do not care so much."* (Girl, Ål, VG2)

> *"It is good that it [the school food] is it [sustainable] but it is not so dangerous [important] for me."* (Boy, Kalnes, VG2*)*

One example of this is how a couple of students said that reducing meat intake was one way to contribute to environmental sustainability, although earlier in the interviews they had expressed dissatisfaction with the school meals lack of meat, and the wish for more meat to be incorporated. Again, taste preferences, convenience and price seemed to be factors that were more important to the students' food choices:

> "*Yes hmm yes so it is [important] that it tastes good… we should perhaps think more about whether it is sustainable and varied and such but um, it is the taste that is most important to me."* (Girl, Ål, VG1).

One student pointed out this conflict between having certain knowledge of what one should eat, and how this does not always align with what food tastes best:

> *"We know a lot about it [sustainable and health] and we know what is right to eat, but I wouldn't say that it is what is good, it's not what tastes best."* (Girl, Ål, VG2).

The notion of personal gain was also brought up by several as something that was more important to students than whether food was sustainable or not. Their motivation to choose

food that was beneficial for themselves was stronger than the motivation to choose food that benefitted the environment. Students talked about how sustainable food choices needed to clearly benefit them in some way for them to choose these foods:

> *"Yes I will say I quite agree ... I would rather eat something that taste good and that makes me feel good and well than eat things that do not taste good [just] because it is better for the environment and climate."* (Kalnes, VG1)

> *"I'm very like that, I eat what I need, [] for my lifestyle, it does not have much to say where it comes from, as long as I get enough calories and carbohydrates and protein and that's fine."* (Boy, Kalnes, VG2)

> *"Yes as long as it is not pushed on me in a bad way then of course I will do what I can, but if it gets worse for me and better for others then it will be a bit like digging your own grave ... it is perhaps a little exaggerated but then you end up making worse for yourself all the time."* (Boy, Kalnes, VG1)

The notion of personal or autonomous choice was also highlighted by several when discussing sustainable food choices. Sustainability needed to feel like a choice and not something that others decided for them. For some, the lack of autonomy to choose what and how to eat in the canteen, sometimes felt restrictive, which seemed to influence how they felt about sustainable food in general, and more specifically the school meals:

> *"It gets a little silly that you have to have restrictions in a way on what to eat because the environment needs it, I was saying, it's kind of ... it's not so strange that a lot of people give a bit of F* when you… there are very many who feel that you are a little "determined over," in quotation marks of course."* (Boy, Kalnes, VG1)

6.2.3 Making efforts to reduce food waste

Vikens' "Free school meals and sustainable canteens pilot project" encourages each school to make efforts to reduce food waste. While sustainability in general was not on the top of priorities in terms of the students' food choices, many did say they made conscious efforts to reduce food waste by taking portion sizes they knew they could finish, sticking to food that they knew they liked, and saving leftovers for the next day. Again, taste was closely linked to sustainable behaviours. While students did not want to waste food, they also did not want to force themselves to finish meals that did not taste good. At both schools, leftovers are often used throughout the week as a way to reduce food waste. While students recognised the use of leftovers as a solution to minimise food waste, many felt that the canteen reused food that the students did not always like, which they perceived as still leading to waste in the end.

Being conscious of portion sizes was something some Ål students seemed to make efforts to do when serving themselves meals. At Kalnes, this was more difficult because the students were not allowed to serve themselves, but instead a canteen employee decided the portion size for them. Students also discussed the notion of responsibility in terms of food waste. They acknowledged their own personal responsibility to only take amounts they thought they could eat, and finish food on their plates.

> *"So I try not to take so much food or I take an amount that I can manage to eat it up… at least at school I do not take more than I usually eat so there is not so much food thrown away."* (Boy, ÅL, VG1*)*

Students also viewed the canteen employees as playing a central role in reducing food waste by making food that suits the students taste preferences. Giving the students a sense of assurance that the food would taste good, would ensure that they took suitable portion sizes that they knew they could finish:

> *"We probably have a responsibility in every way…to not throw food, for example, or try to take portions that we know we can eat up. But again, it is also that if they [canteen employees] want the students to initially take portions they can eat then the students must also be sure that this is food that is good to eat."* (Boy, Ål, VG2)

Some students at Kalnes school voiced feeling unwanted external pressure to reduce food waste. Some had experienced being observed when they went to dispose of their plates and others described how teachers had told them to finish the food on their plates. This frustration may be similar to what was mentioned above in subsection 6.2.3 about feeling restricted or decided over in some way. At Kalnes, students also exclaimed frustration over not being given the autonomy to serve themselves. Instead, an adult decided the portion sizes, which the students' said varied according to body size and gender. This was observed by students in both focus groups at Kalnes school and was viewed negatively:

> *"Um they decide how much food to give and they give more to the boys than the girls and if you are fat or thin so like yeah ..."* (Boy, Kalnes VG1)

Students had varied views on how much food waste there was at the school. Some were of the impression that there were large amounts of food waste due to many not liking the meals, whereas others thought there to be little. At Kalnes school, students are to weigh their food waste and report it in an online form using a QR form which they scan on their phone. In both focus groups at Kalnes school, students expressed negativity to this method because it was time consuming and they did not see the point of doing it this way. Again, they felt it was something they were obligated to do. They discussed simpler ways to weigh food waste, such as having

one big bucket that gets weighed at the end of the day, where students did not have to report waste individually. This may reflect the level of ownership the students feel over this specific method of reducing food waste. One student acknowledged that it was unfortunate that he did not care about scanning the food waste, which may reflect his understanding that measuring food waste could be important sept to reducing waste:

> *"Yes but that because students' ... or now I can probably speak for myself, but we give a little F* for that scan, and it's a little silly that we do [not care]."* (Kalnes VG1)

It seemed that students understood the importance of reducing food waste, and some saw how measuring food waste could provide insight into what meals students did or did not eat. As one Kalnes student pointed out, the inconsistency in measuring food waste may be misleading:

> *"Then you actually have to scan a QR code and measure how much you throw and so on and so on but ... there is none ... there are 95% of the students' who bother and do it then soooo the reports that Viken gets back about throwing food, they must look good, and the food must taste good because according to that report we do not throw food at all, but actually 95% of the students really just throw food."* (Boy, Kalnes, VG1)

6.3 Degree of student participation

This main theme covers aspects related to how students view their participation in the pilot project. Two subthemes emerged. The first subtheme; "knowledge of the aims and conditions of the project," has to do with the level of knowledge and understanding the students have about the various components of the pilot project and the underline rationales. The second subtheme; "listening to students and involving them in decisions," reveals how students experienced their current level of influence in the pilot project.

6.3.1 Knowledge of the aims and conditions of the pilot project

During interviews students were asked what they knew about the "Free school meal and sustainable canteens pilot project." Students demonstrated varying degrees of knowledge and understanding of the aims and conditions of the pilot. While all the students appeared to have some knowledge of the various project components (see section 3.9), many expressed uncertainties around the project. The components that were discussed were the 15NOK per meal budget, the organic component, health component, meat reduced meals.

Most students said that they knew that the school meals had to be healthy and sustainable but did not have an in-depth understanding of what or how this was implemented in practice, or why. For example, many students knew that the canteen had begun to incorporate organic

produce into the meals, but none displayed knowledge of the project aim of having 30% organic food in the canteen. Students had observed that the school meals were clearly different to what they were used to or what they preferred, and several of the products that they used to be able to purchase had disappeared as the year progressed. Several were aware that there were certain conditions that the canteen had to follow, such as reducing sugar and meat, and one showed awareness of the National Directorate of Health dietary guidelines in schools:

> *"She [canteen leader] cannot sell things because they can only sell so and so much sugar for example, and so and so much meat. And like inside [the canteen] ... we have a salad bar, and some days there is no meat because then they have used up all the meat they are allowed to use in a week."* (Boy, Kalnes, VG1)

> *"I know that it must be healthy for some days so there is no meat, because the Norwegian Directorate of Health believes that we eat too much meat."* (Boy, Kalnes VG1)

Some students knew that the budget for the school meal was 15 NOK per serving, while others had no knowledge of this component. Some demonstrated an understanding of how the budget of the school meals influenced what food was served:

> *"A little but not much… it is mostly like that we cannot buy meat because it is too expensive and that the food must be a little healthy and nourishing and that is it…*" (Girl, ÅL VG1)

Even though students were aware of some of the project components, all groups at both schools expressed that they did not understand the reasons behind them. Students stated that they were not provided with the justification underpinning the choices made by the canteen and the school. This experience was particularly shared among the second-year students who were accustomed to the "old" canteen:

> *"No but they have like in a way, they have been in on the topic, but they have not like told like what the main goal is and why they do it and how they do it, they have just like just said "yes but we are an organic school so we have to cook organic."* (Girl, Kalnes VG2)

It appeared that most students had picked up information about the project from their peers, or from observing changes in the school meals, while communication from the school administration or teachers was thought to be limited. Both schools had provided information at the start of the project, but this was experienced as insufficient by some. At Kalnes school, students were informed about the weekly menu via Microsoft Teams digital platform, while Ål school, students pointed out that they did not receive this information via Microsoft Teams, but that they knew what type of food to expect on certain days. Some students at Ål school also

said that the menu was posted in the canteen, while some were unaware of this. Several of the student council members at both schools did not have more information than other students:

> *"Yes I am a student council member but I have not heard anything. We actually get very little information about things regarding the canteen… we get like what is for lunch and stuff..."* (Boy, Kalnes, VG2)

6.3.2 Listening to students and involving them in decisions

When asked whether and how they had been involved in the "Free school meal and sustainable canteens pilot project," it appeared the students' participation was limited to students providing feedback about the food and did not extend to other aspects in the development, planning or implementation of the project. All focus groups described being given the opportunity to provide feedback on the food served, both through a questionnaire and through the student councils at each school. At Ål school, a specific "Canteen project group" existed, but at the time of the interviews, this group had had one meeting, and the students did not experience this group as having much influence on the canteen:

> *"They say nothing… they just call in [to a meeting]) suddenly… so it's a bit like that… it does not feel like we are taken seriously in a way… that we are forgotten a bit."* (Girl, Ål, VG1)

It was not apparent whether the interviewed students had a wish to be involved beyond being providing input on what food was served. One student pointed out that students themselves had not tried to get involved in the initiative beyond giving feedback. It seemed he thought that students were responsible for initiating their own participation:

> *"But we have not exactly asked either, we have not shown that we really can either."*(Boy, Kalnes, VG1)

At Kalnes, a short questionnaire was provided through a QR form, which was also used for reporting food waste, as mentioned earlier in section 5.2.1. While some students found it pointless to use this QR form, one student said she had experienced that her feedback led to change;

> *"There is that QR code, so you get to write down what you would have done differently with the food, what did you like, what did you not like, and it is like free writing, it is allowed to write what you would like next week, so if you get more people involved then it may be that it will be fulfilled ... for me, just before Christmas I asked if they could have rice porridge instead of the barley porridge and there we got it for lunch once."* (Girl, Kalnes VG1).

Several other students shared less positive experiences when it came to having their views heard and taken into account by the school administration and the canteen. Some students described that it felt pointless to express their views about the canteen and the food offer because it did not lead to any changes. Several described how they felt they had push to be heard, and that their complaints or suggestions were generally disregarded or rejected without further explanation:

> *"And then they immediately reject it… they do not want to hear what we think about."* (Boy, Kalnes, VG1)

> *"Then we do not know what gets done with it [the students input on meals]."* (Boy, ÅL VG 2)

The student council members express dissatisfaction with this process, describing a one-way communication, where students' complaints or requests were not met, and where there was limited, to no communication back to them about why their suggestions could not be implemented:

> *"I'm on the student council, and we on the board have had a little bit to do with it [the canteen], but it's only when we get complaints from other students and then we take them further, so only in that way, but nothing really gets done with it really…even if they like… even if they say that they do something about it, then no one notices any difference at all. So yeah it's [being on the student council] perhaps the only influence we have had."* (Boy, Kalnes VG2)

> *"I have at least been with a little because I am a member of the student council and there we have had a few meetings where we talked about the canteen and such but ... no it is not quite good... no it is because they do not… I feel that they do not… I experience it as if they do not want to cooperate with the students at all and they run their own race as usual and that they just decide everything themselves…"* (Boy, Kalnes VG1)

> *"No, so we have tried to have a voice and then those who are in the student council have taken it further and then we have got back that we are just ungrateful…."* (Girl, ÅL VG2)

Again, it seemed that students experienced that the adults, be it canteen or school administration, was more concerned about the sustainability of the food, and meeting the project criteria in regard to the food served, than they were about listening to or involving the students in decisions. It seemed that in some cases, this experience of not being able to have an influence on the canteen, and the lack of collaboration, may have overshadowed the positive aspects related to sustainability:

> *"I think it's good… .so basically it's good that they buy organic for the environment and such… but… .so it's still… uh how should I say it… .it's kind of bad then… because it is poorly done… it seems that they are not open to uhhm input then, to how it might have*

only gotten better… I do not know, because like…. They [the canteen] drive their own path and its never like they have asked for suggestions for what they can make or something like that, and it is because they want to… or yeah its because they want it to be sustainable…which is good maybe for the environment and such then but yeah… " *(Boy, Kalnes, VG2)*

"But if you want my perspective then they must like… then it's about doing it very well on paper and it's about being an organic school and with organic food, but really then they are like that []what happens on paper it does not happen all the time." (Boy, Kalnes VG1)

For some students, the lack of information about the pilot project, and their views not being taken into account was experienced as being a top-down approach. Several felt they were not included in decisions and were expected to conform to the choices that were made by the school:

"They have never sat down and taken the time to have a lecture on what the project entails like, they just expected us to know it and adapt to it." (Girl, Kalnes, VG2)

Students came with suggestion for how the school administration and the canteen could involve students more in what happens in the canteen. One student pointed out that listening to the students could increase students' satisfaction and acceptability of the meals and was seen as being economically beneficial:

"Yes, so if the students were to be more involved in what is happening in the canteen, they could have had a… like that on teams or something like that and then maybe the canteen writes it down, or the canteen lady asks, "what do you want?" "Yes we want this and that and that" and then they might make the food that the students want…." (Girl, Kalnes VG2*)*

"Yes but then it is in a way better that they take in suggestions for improvement than that they lose money when the students do not want it." (Boy, Kalnes VG2)

Some viewed better communication about the aims and conditions as a tool for increasing students understanding and acceptability of the project and the food served.

"So if they had released more information about what the project was all about, so I think maybe it would have been, it would have been easier for people to understand then, because there are… many of the students they do not understand why it should be organic and yeah…." (Boy, Kalnes VG2)

"*Yes maybe there are some who do not know that we have limited money… meat costs a lot of money so I think in a way many do not think so much about it… they just think we could have had more meat sometimes …* "(Girl, Ål, VG1)

Some students expressed a wish for more information from the school:

> *"Yes, there is very little information then and you should like know more about free school food and what it's all about."* (Boy, Kalnes VG2)

While others didn't see more information as having this impact:

> *"So the food is the same even though we get more information about it []… but um no… maybe it depends."* (Boy, ÅL, VG1)

7. Discussion

The following chapter presents a discussion of the findings displayed in the former chapter. The first section presents a summary of the findings. The following three subsections then discusses aspects related to each main theme in relation to existing research and the theoretical framework.

7.1 Summary of findings

The current study set out to explore students' experiences of the "Free school meals and sustainable canteens pilot project," and particularly how students view the food, the pilot projects sustainability components, as well as their participation in decision making process of the pilot project. The findings suggest that students at Ål and Kalnes schools experienced the pilot project similarly. For many, the general idea of having a free meal offer at the school was viewed positively. However, the majority of students wanted more variation, improved taste, and appearance in the food offered. There was a general experience that the food often did not suit the students' preferences. Furthermore, students' understanding of different components of food sustainability varied; some displaying greater understanding and knowledge of sustainability than others. While most students viewed the concept of sustainability as important, it was not something they took ownership over when it came to their own food choices. In terms of how students experienced their participation in decision making processes around the school meals and the canteen, several aspects were highlighted. Students' knowledge and understanding of the pilot projects aims was limited. It appeared that students did not have a sense of ownership over the pilot project and its' objectives. There was also a general experience of not being heard or taken seriously when it came to decisions around the school meal, something that appeared to have an influence on the students' general attitude towards the pilot project.

7.2 The decisive role of students' preferences

This first section of the discussion will focus on answering the first research question of the study: "How do students view the free school meals and the canteen food after the implementation of the pilot project". In this part of the discussion, I will focus mainly on the topic of food preferences because it was one of the most salient aspects highlighted by students, and something that influenced several other aspects of their food behaviour and their overall views of the pilot project.

On the whole, students were positive to the idea of having a free school meal offer, something that has also been found by others (Asada et al., 2017; Illøkken et al., 2021; Mauer et al., 2022). The fact that the meals were free was appealing to the students because it saved them money and time, and some even acknowledged that the free meals could positively influence concentration levels, energy levels and provide food to those students who could not afford it otherwise. This mirrors the findings by Illøkken et al. (2021) and some of those by Cohen et al., (2021). These are also intended outcomes of the Viken "Free school meal and sustainable canteens pilot project."

It was, therefore, surprising to find that several of the students shared negative experiences with the pilot project, which appeared to be largely due to their discontentment with the taste, appearance and variety of the meals served and the fact that meals deviated from students' food preferences. These findings mirror the findings from Asada et al., (2017), Eustacho-Colombo et al., (2021), Kolve et al., (2022), and Mauer et al., (2022) where students also reported an overall positivity to having a free and healthy meal offer but reported that meals did not align with their preferences. Holte et al., (2011) explored the barriers to implementing the Norwegian national guidelines for school meals also reported that students' perceptions of the lack of taste, variety and unpredictable availability led to students not utilising the healthy school meals. The lack of adaption to the target groups preference was seen as a barrier to the implementation of the national school meal policy (Holthe et al., 2011). Authors in these studies highlight that adolescents' preferences, in terms of taste, appearance and variability may be one of the biggest barriers that needs to be addressed in the implementation of sustainable and healthy school meals. These conclusions align with what the current study found.

The participants in the current study said that when the free meals and the canteen food did not meet their preferences, this had some unfortunate effects on some of their food behaviour, such as them leaving the school to purchase food and drink. In the case of Kalnes school and Ål school, the distance to the shops may be a barrier that hinders students from leaving the school to purchase other foods. However, several other schools in Viken are located in town centers with greater access to food outlets and restaurants. It is a well-known phenomenon that many Norwegian adolescents purchase unhealthy snacks and sugary drinks from nearby shops (Lazzeri et al., 2016), and studies both in Norway and other countries have found that students often prefer off-campus food due to the variety and appeal they offer (Mauer et al., 2022; Payán et al., 2017; Ziegler et al., 2021). Holte et al. (2011) also reported that for those students without a packed lunch, buying lunch at nearby food outlets appealed more to students when the school canteen-offer lacked variety or had unpredictable availability. The report by the National Health Directorate (2013) also points out the challenge that canteens have to compete with nearby shops in terms of variation and price. However, not liking the school meals may not be the only factors that influences this off campus consumption. Studies have shown that factors beyond taste and appearance such as peers (Illøkken et al., 2021; Ziegler et al., 2021), and students' autonomy (Ziegler et al., 2021) influence adolescents food choices and behaviour in different contexts.

These consequences mentioned above point to the importance of working with students' preferences when implementing school meals. A challenge is that young peoples' food preferences are often not aligned with food that is considered to be health promoting. Rather, food that is considered low in micronutrients, energy dense, processed, and high in salt, sugar, and fat (Helsedirektoratet, 2016) are more preferred by this group (Bugge, 2007; Mauer et al., 2022). The findings in this study showed that students associated healthy and sustainable food with being boring, tasteless and unvaried. While there were indications that the school meals reinforced these perceptions, the current study did not determine whether students had these perceptions before the pilot project was implemented. These findings are in contrast to those of Illøkken et al., (2021) who found many positive attitudes towards the school meal project, which led to students' developing an increased liking for healthy food as well as contributing to students learning about healthy eating and supporting the formation of healthy eating habits. The current study's findings suggest that the pilot project may not have positively challenged students' negative perceptions towards healthy food. These negative associations with healthy food may hinder the development healthy eating habits into adulthood (Craigie et al., 2011).

It may, however, be flawed to think that adolescents only like unhealthy food. In the current study, students did like some foods that were considered healthy. Some meals like yogurt, potatoes, homemade granola, and components of the salad bar, were acceptable and liked by several of the students, indicating that adolescents' preferences can in fact span healthy and sustainable foods, which others have also found (Asada et al., 2017; Ziegler et al., 2021). The study by Asada et al., (2017) highlighted that students were frustrated with the inaccurate portrayal of young people as not wanting to eat healthy food. Findings like these suggest that the healthiness of school meals will not automatically deter students from liking them. This points to the opportunity that lies in finding ways to make healthy meals that incorporate students' preferences for taste, variation and appearance. That is, healthy meals that taste good may in fact be accepted by students.

Several students articulated discontentment with the lack of meat in the free school meals and in the general canteen food. While the Viken pilot project has not set out criteria that specifies that meals should be meat-free (although there must always be a vegetarian option), using less meat can be both beneficial for health as well as economic and environmental sustainability (Nasjonalt råd for ernæring, 2017). Negative perceptions towards meatless meals have also been found by other to be a challenge to implementing healthy and sustainable school meals (Kolve et al., 2022; Lombardini & Lankoski, 2013; Mauer et al., 2022). However, when factors like taste and appearance are improved, this may lead to increased acceptance of meat-free meals.

The Viken "Free school meals and sustainable canteens pilot project" has been implemented in the 13 upper secondary schools for a fairly short period of time, partly under Covid-19 related restrictions. The students had only been exposed to the meals in their full format for a little more than 6 months at the time of data collection. Perhaps acceptance and likeability of meals may improve with increased exposure (Appleton et al., 2018; Lombardini & Lankoski, 2013) as students become more acquired to some of the foods that they are unfamiliar with or do not like, such as barley grains, beans, certain vegetables and meat-free meals. This may positively influence their habitual eating patterns, which can support health and sustainability objectives of the pilot project (Eustachio Colombo et al., 2021).

7.3 Knowledge and awareness of food sustainability and making sustainable food choices

The second research questions that the study set out to answer was: "How do students view the various components of sustainability related to the pilot project". This section will discuss some of the key findings related to this question.

Knowledge and understanding of several components of sustainability varied among students. Some demonstrated an understanding of key concepts and facts related to food sustainability and were able to discuss the sustainability of certain ways food is produced and consumed. Food produced locally and organically was viewed by several as being beneficial for the environment, human health, and economically for Norwegian farmers. These views align with studies that show that food produced locally and on organic agriculture methods may have such benefits (Ritchie & Roser, 2020; Solemdal & Serikstad, 2015).

When asked explicitly about their understanding of the use of seasonal food, this was not something students elaborated on. This could reflect that they have less knowledge and awareness about this aspect, or that they do not view this as a component of sustainability. The use of food that in season is one of Matvalgets six principles of a sustainable meal (Matvalget, 2020) and is therefore incorporated in the pilot project. These findings are interesting because it could in some ways be connected to the students' complaints about the lack of variation in the school meals. Using Norwegian fruit and vegetables in season have obvious implications for the variety of produce used in the meals particularly during winter months when availability is limited. Perhaps gaining a greater understanding of why the canteen utilises seasonal food, and how this has implications for the variation, may lead to students developing a higher degree of acceptance. However, the finding that sustainability was not a determining factor for students' food choices may suggest that increasing their knowledge of how and why seasonal food is utilised may not have a significant impact on students' acceptance of meals. Nonetheless, others have shown that increased awareness of sustainable behaviour can lead to more positive attitudes and intentions to consume more sustainably (Francis & Davis, 2015; He et al., 2012).

While students displayed knowledge and awareness of some components of sustainability and recognised the importance of making sustainable food choices to some degree, sustainability

did not appear to influence their own personal food choices. For example, the climate impact of red meat was known by several of the students, however the same students highlighted that they wanted the school meals to have more meat in them. Similar discrepancies were found by Eustachio-Colombo et al., (2021). Interestingly, two students in the current study also said they knew what the "right" things to eat were (both in terms of health and sustainability), but that these foods were rarely good, and often did not get chosen because of this. Similarly, He et al., (2012) found that students receiving organic school meals had increased awareness of organic food and healthy eating, and increased intentions to consume these types of food. However, the students' knowledge and intentions did not lead to greater consumption of healthy and organic food (He et al., 2012). Finding like these are interesting because they bring into question how important knowledge of and awareness towards eating sustainably, actually is.

Furthermore, some students said that sustainability was not really important to them when it came to the food that they ate. As Francis and Davis, (2015) point out, there may be a multitude of reasons why adolescents do not consume sustainably. Factors like not recognising the implications that their consumption has, and not knowing what options are most sustainable, can be barriers. However, other factors like hedonic preferences and general apathy may also explain why adolescents do not consume sustainably (Francis & Davis, 2015). These factors may to some extent explain why the students in the current study did not always consume sustainably.

Research shows that children's dietary behaviours are influenced by the complex interaction between a variety of factors such as biological, environmental, cultural and social (Birch et al., 2007; Ziegler et al., 2021). That is, having knowledge and beliefs about what is considered sustainable to eat may not be one of the most critical factors to address to get students to eat sustainable school meals. Students' acceptance of sustainable and healthy school meal initiatives may be more reliant on the degree to which the meals align with their food preferences and the habitual eating habits (Eustachio Colombo et al., 2021). Nonetheless, research suggests that school meal interventions that address individual factors (e.g. cognition, awareness, attitudes, motivations, autonomy), in conjunction with social environmental factors (e.g. peers, teachers and social support), the physical environment (e.g. availability of healthy and sustainable food) and the macro level environment (e.g. cultural and social norms and policy), may be the most optimal for achieving improvements in diet, health and sustainability (Illøkken et al., 2021; Oostindjer et al., 2017; Ziegler et al., 2021). As Kamenidou et al., (2019) point out, in adolescence, individuals start to develop knowledge of and attitudes towards

sustainable consumption, which may positively or negatively influence their consumption of sustainable food (Kamenidou et al., 2019). Therefore, addressing students' knowledge and attitudes may be an important part of a holistic approach to implementing school meal initiatives like that of the pilot project.

Reducing food waste was also something students viewed as sustainable and something they made efforts to do. This mirrors the findings from Malila (2020) and Eustachio-Colombo (2021). However, also here there was a discrepancy between students' recognition of the importance of reducing food waste, and their actual behaviour. For example, students at Kalnes acknowledged the need to reduce food waste but did not want to take responsibility for weighing their food waste. This could reflect a low level of ownership over this measure which may be due to the fact that students did not understand the reason for measuring, nor why the school used this particular method. However, it may also reflect a certain level of deflection of responsibility onto others. That is, students may be concerned with reducing food waste, but have a tendency to place the responsibility to do so, on others. This is also one reason why adolescents may not generally consume sustainably (Francis and Davis, 2015).

If the pilot project is to reduce food waste, then increasing students understanding of why the school uses a particular method and working to find other methods that motivate the students to weigh their food waste, may support this objective. The findings also suggest that food waste behaviour was tied to the taste of the food. That food waste increases when students' preferences are not met has been shown by others (Blondin et al., 2015; Mauer et al., 2022; et al., 2017). Therefore, taste is also an important factor to consider in order to ensure the sustainability of the pilot project.

Contrary to He et al., (2012), the current study did not find that serving organic meals had a positive influence on students' attitudes towards organic school meals nor their intentions to consume more sustainably. In fact, students appeared to have negative associations with organic food. Particularly at Kalnes school, the new food offer in the canteen, with particular focus on organic food, was viewed as being restrictive for the sake of the environment. Some students highlighted the wish of having the freedom to choose sustainably as opposed to being forced or restricted in their food choices. Adolescents level of eating autonomy, that is, their perceived agency to choose what to eat, influences their food intake at school and other settings (Ziegler et al., 2021). Choice restriction is one of several, and highly debated, policy interventions used to promote sustainable and healthy food choice, both in schools and other

environments (Lombardini & Lankoski, 2013). Choice restrictions may produce individual reactions that span from compliance to rejection to even rebellion (Lombardini & Lankoski, 2013). Choice restrictions may also have some positive intended effects such students consuming more organic, local, meat reduced meals, due to the unavailability of other types of food. Eating more of these foods may in some cases support the development of positive attitudes, stimulate pro-environmental goals and values, related to performing the sustainable behaviour (Lombardini & Lankoski, 2013). It may be important to consider in what ways students in the current study can come to feel that they have more choice when it comes to sustainability, particularly related to the food offered in the canteen. This is one aspect that may be facilitated through higher levels of participation in the pilot project, which will be discussed in the next section.

7.4 Students' degree of participation in the pilot project

The last research question that the study set out to answer was: "How do students experience their participation in the pilot project?" The following section of the discussion will address some of the findings related to this research question. It will particularly draw in the theoretical framework and empirical work on youth participation, with particular reference to the two models presented in chapter four by Hart (1992) and Shier (2001). It is not my intention to stringently evaluate where the pilot project is operating on these models. It may be that they operate at different levels, at different phases of the pilot project. However, the models can be useful to identify some of the present challenges which may be hindering the pilot project from being truly participatory and reaping the many benefits that higher levels of participation have shown to have (Griebler et al., 2017; Mager & Nowak, 2012).

Currently, students' lack of an appropriate understanding of the pilot project hinders them from truly participating. Having the appropriate knowledge and understanding of a project is considered a perquisite to genuine participation (Hart, 1992). It can be difficult to participate in and have influence over something students do not understand the bounds of. According to Hart (1992), for a project to be labelled as participatory, young people have to understand the intentions of the project. This is the first of three factors that characterises "Assigned but informed participation" (Hart, 1992).

The lack of information about the pilot project, coupled with the obvious observed changes to the food, created frustration among students. Similar results were found by Asada et al., (2017) and Eustachio-Colombo (2021) where students also expressed frustration over

the lack of proactive communication around the intentions of the school meal policy reform. The lack of understanding of the projects bounds also appeared to be problematic in that students were often requesting food items and meals that were clearly outside the bounds of the pilot projects food criteria, both in terms of health, economic and practical aspects. Whether increasing students' level of understanding of the project would actually have influence on what kind of food students request, is unsure. As one student pointed out, having more information about the project will not change the taste of the food. However, working to increase all students understanding of the pilot project components may be able to reduce some of the frustration. The students themselves suggested that increasing students' awareness, such as budget aspects (particularly related to the high price of meat), may lead to greater understanding, and acceptability, of sustainable meals.

The findings also suggest that students at both schools were mainly involved in providing feedback on the food menu. This feedback was collected through questionnaires and through student council meetings. Students said that they were not involved in planning or implementation aspects. While student councils are considered a form of collective participation, where students engage in ongoing dialogue with other decision makers in the school (Mager & Nowak, 2012), it seemed that students' council members influence over decisions made in the pilot project, was limited. According to Simovska (2007), this type of participation, where students are consulted on already planned activities, and where their opportunity to have real influence is limited, may not be considered true forms of participation. Furthermore, as Hart (1992) points out, projects that involve young people in a way that gives them the impression that they have a voice, but where they actually have little influence over the aims of the project, can be considered a form of "Tokenism". I want to underscore that I do not know the exact degree to which the Viken pilot project intended to implement student participation in the project. Through reading articles on Vikens' homepage and the internal documents from Matvalget, it appeared that student councils and questionnaires, were the main arenas where students could provide input on the pilot project.

Student's negative experiences mentioned above appeared to influence students' overall views of, and acceptance of the pilot project. Currently it seems students experience a discrepancy between their expectations and their actual level of influence in decision making. According to Shier's (2001) model, the second level of participation requires that institutions actively provide opportunities to support students in expressing their views, and at level three, these

views are given due weight in decisions. While students at both schools were provided some opportunities to voice their views on the pilot project, it was unclear the extent to which these views were considered. According to students, their views were often dismissed. This may suggest that students' level of participation in the pilot project is in some cases limited to level two of Shier's (2001) model. Furthermore, when students did provide their input on school meals, but did not see any changes made, they felt frustrated, powerless, and that their participation was pointless. This mirrors Nordin et al.'s (2010) findings who furthered showed that this feeling of pointlessness may hinder young people from wanting to participate any further in health promotion projects (Nordin et al., 2010). Furthermore, Griebler et al.'s (2017) review showed that student participation, when symbolic rather one of real influence, can lead to experiences of not being taken seriously or experiencing unmet expectations. The findings suggest that the low level of participation taking place may in fact be a barrier to successfully implementing healthy and sustainable meals. As Eustachio-Colombo (2021) showed, students' acceptance of healthy and sustainable school meals was impeded when they experienced that their views were seldomly implemented.

Moreover, students said that they often did not receive any feedback on why decisions had been made that were not in line with their wishes. Shier (2001) points out that providing proper feedback when young people have expressed their views, particularly when adults have decided to over-ride their wishes, is good practice. It is important that young people are given the reason why decisions have been made, and in some cases, supported in exploring other ways to accomplish their objectives (Shier, 2001). Nordin et al., (2010) showed that the lack of response from adults, such as not providing feedback, can be a significant barrier to students wanting to participate in health promotion projects. Therefore, when given the opportunity to have a say in decisions around the pilot project, it is crucial that students experience that they have genuine influence, and their views are handled appropriately.

Hart (1992) points out that projects do not always have to operate at the highest rung of participation at all times. Adolescents may have different preferences for and wishes to participate at varying degrees. This may also be the case for the students in the current study. Student council members and class representatives had all volunteered for their position, indicating that they may expect to have a certain level of influence inherent to participation described in level four of Shier's (2001) model. However, to what extent they wished to participate in other aspects of the pilot project, such as the delivery of meals, was not determined. As Kolve et al., (2022) point out, students may in fact find it inconvenient and

unmotivating to partake in the preparation and serving of meals. The authors suggest that involving students in planning the menu may be more suitable. Furthermore, Hart (1992) underscores, the importance of providing students the opportunity to make an informed choice about their participation and designing the project in a way that allows students to participate to the best of their abilities. Therefore, a more in-depth exploration of what aspects students would like to participate in, may be needed.

While operating at higher levels of participation described by Shier (2001) and Hart (1992) is not always a necessity, it is at these higher levels that the most noteworthy benefits are realised. Of particular relevance to the current study may be the potential to develop students' "action competencies" (Jensen & Schnack, 1997). That is, their capacity to initiate change in their life, and at school, which are health promoting or which influence other health related determinants (Jensen & Schnack, 1997). The current findings suggest that students have varied understanding of the pilot project and its sustainability components. This appeared to influence their ability and motivation to make sustainable and healthy food choices. Furthermore, personal motives and the perception of autonomy influenced their food choices. These findings may indicate a generally low level of ownership over pilot project components, which could partly be a reflection of their low degree of participation in the pilot project. As Jensen and Simvoska (2005) point out, "if students are not actively drawn into the process there is little chance that they will come to feel a sense of ownership of the area of learning." (pg. 151).

Higher levels of participation may be able to increase students' knowledge of the pilot projects health and sustainability objectives, and foster motivations for students to change their food consumption behaviour in line with these objectives (Bruun Jensen & Simovska, 2005; Griebler et al., 2017; Jensen & Schnack, 1997). Greater participation in the pilot project could increase students understanding of how sustainable food choices could benefit them on a personal level, which may address their low motivation to consume sustainably. As Hamdam et al., (2005) found, students who participated to a high degree in a health promotion intervention were significantly more likely to consume healthier food than those students that participated to a lower degree (Hamdan et al., 2005). Furthermore, as Eustachio-Colombo (2021) point out, student participation in decisions around the school meal and addressing students' personal motivations supported the increase of plant-based food acceptance. These findings point to the effects that increased motivation may have on students themselves, which can potentially increase their overall acceptance of the pilot project, facilitating its success.

8. Methodological reflections

The following section presents a reflection around some of the strengths and limitations related to the methodology applied in the thesis. Here I discuss some of the aspects that I found to be most salient in relation to different stages of research

8.1 Sampling and recruitment of participants

The extent to which one can extrapolate or extend one's findings in a particular context or population to other contexts or populations is referred to as generalisability (Maxwell, 1992). Knowledge generated through qualitative research can be valuable and useful in other settings, populations or circumstances despite not being able to live up to statistical tests for inference (Maxwell, 1992). One of the ways qualitative research aims to enhance generalisability is through purposive sampling. Furthermore, purposive sampling can facilitate the testing of ideas about the study setting by selecting participants that are essential to the validity of those ideas (Maxwell, 1992). In early phases of the research process my intention was to recruit "typical" students in order to understand the variation of the phenomenon of interest in the school setting. However, on further consideration it became apparent that student council members and class representatives were more accessible for recruitment, while pertaining particular knowledge or experiences needed to answer the research questions, particularly the one regarding participation. These students were also thought to be attuned to the views of their peers, since their role involves consulting peers on matters in the school. While these traits may have added value to the research, their deviation from the wider student body may also pose limitations to the generalisability of the findings. That is, while these students are meant to represent their peers in school matters, their individual views in the focus group interviews may not be representative of the "typical" students at the school. In order to gain a broader understanding of students' experiences, I could have carried out additional focus group interviews made up of "typical" students. Due to the scope of the thesis, and time constraints, this was not done. Nonetheless, the student council or class representatives are not a totally homogenous group, and the participants differed in gender and study subjects which may have allowed for diverse opinions and experiences to be revealed (Gibbs, 2012). Therefore, findings based on this data source may still be able to say something about other students.

There may be some limitations to the study's findings that are related to the way student were recruited. As described in section 5.3, students were recruited through the school

administration at both schools. While I had influence over the participant inclusion criteria beforehand, I had limited influence over how students were asked to participate. However, at Kalnes school, students were sent an email, by the school administration (with me on copy) where they were asked to meet up in a specified room, on a certain date, and time. This was done about 2 weeks before the interviews took place, giving them time to prepare or consider their participation. It is not clear how students were recruited by the school administration at Ål school. Some Ål students said that they had been approached in class on the same day of the interviews. Despite signing consent forms and being reminded that their participation was voluntary, and they could retract consent at any time, students may have felt a certain pressure to attend the interviews from the school administration. This gave them little time to consider the topic and their participation in the study, which may have influenced their depth of engagement and willingness to share their experience. Nonetheless, when transcribing and analysing the interviews it became more apparent that these interviews at Ål school did add valuable insight to the study, despite more silence, and more one-sentence answers. This will be elaborated in the later section 7.5.2

The question of validity has to do with the extent to which the method of the study examines what it intends to examine, and what the research has arrived at (Kvale & Brinkman, 2012). It has to do with the "appropriateness" of the tools, processes and data that the study used. The students provided the only source of data from which the findings derived, which may weaken their validity. Validity may have been enhanced through triangulation of the data across multiple data sources. Triangulation is a procedure used to ensure validity within qualitative research, which can be done through gathering data from different data sources (i.e., participants), theories, methods and among different researchers (Creswell & Miller, 2000). The three research questions posed in the study all had to do with the students' subjective experiences of the school meal, the sustainability components and participation in decisions around the pilot project. Therefore, interviewing students is indeed a valid method as it allowed me to investigate what I intended to. But in terms of practical implications, and the conclusions drawn from the information provided by the students, this data source may present just one side of the picture. For example, the extent to which the school actually facilitates student participation, the degree to which students' views are taken into account, and how feedback is handled, may be some aspects that could be understood better through the inclusion of other data sources, for example, interviews with canteen employees, the school administration and teachers. It may be that the school meal project, and the level of participation taking place at

the school is viewed differently by different people in the school. Nevertheless, students are central to the participation process, so their subjective experiences are important.

Another aspect where validity of the findings may be questioned has to do with apparent discrepancy between students' and the schools reported utilisation of the school meals, and their negative attitudes towards them. The fact that the free school meals do not always meet the students' preferences, may arguably not be a main concern in itself. That is, if students are dissatisfied with the taste, appearance and variation of the healthy and sustainable meals but they still consume them, then one could argue that the pilot project is doing what it intends to do: improve their food consumption. The utilisation rates reported by the students in the study, and by Ål school suggest that many students are in fact utilising the school meals. However, the method of measuring the utilisation rates may be questioned. Ål school reports that 63,6% of the student body utilise the school meals on a daily basis. However, it is not known how the school actually measures these. Furthermore, during interviews many Ål students said that they were away from the school several days of the week due to internship. Therefore, students'' utilisation rates may actually have been higher if they were at the school five days a week. I was unable to obtain meal participation rates at Kalnes school. Nonetheless, if these utilisation rates reported are valid, then it appears that, despite participants strong negative opinions about the food, many students are still taking part in the meals. The discrepancies may be a reflection of some methodological and pragmatic aspects 1) Students may eat the meals despite meals not always meeting their preferences: 2) the attitudes held by the participants are not representative to all students at the schools. 3) Students may eat the meals because they do not have other options. 4) A significant number of meals may be ending up as food waste, which is not reflected in the utilisation rates, and is not consistently measured by the schools. 5) when students are put in an interview situation, they may be more likely to remember negative aspects than the positive ones. To be able to confirm or disconfirm some of these aspects, thereby enhancing the validity of the findings, triangulation procedures are needed. One way I could have done this is by carrying out a form of quantitative data collection whereby I measured actual participation rates, and surveyed attitudes towards school meals to examine the relationship between these two. Another way may have been to carry out more focus group interviews with a wider portion of the student body, which may have uncovered greater variation in students views of the school meals. However, this was beyond the scope of the research aims.

8.2. Data collection

The use of focus group interviews as the method of data collection can be considered a strength based on their ability to elicit multiplicity of views and experiences within a group context (Gibbs, 2012). Focus interviews puts emphasis on the insights and data produced by the interaction within the group (Kitzinger, 1995) and the group dynamic can support and bring out different opinions about an issue (Krueger & Casey, 2015). The insightful discussions allowed me to tap into students' shared experiences, something deemed to be possible to a greater extent than the use of individual interviews or group interviews.

There were clear variations in the depth of discussions between the students in Kalnes school and Ål school. At Ål school, the focus group interviews were at times more similar to group interviews where I asked students questions and they responded directly to me, rather than discussing among each other. At Kalnes school, students discussed more among each other, gave longer replies and expressed more emotions. One of the explanations for this may be in the different recruitment strategy mentioned in section 8.1. However, these differences may also be due to other factors such as the smaller groups at Kalnes school (N=5 and N=4 versus N=6 and N=7 at Ål school) which may have made it easier for students to voice their views. The smaller group sizes also made it easier for me to facilitate the interviews and give everyone a chance to be heard.

Furthermore, the use of a co-moderator at Kalnes school may also have played a significant role in enhancing the flow of the conversations and the participants' level of disclosure. The absence of a co-moderator (due to sickness) at Ål school is something I deem to have significantly limited the depth of these conversations. Being alone in the interview situation made me less confident and I had less space to reflect on what the students had said. The co-moderator at Kalnes school asked follow-up questions that I may not have thought about and supported me in drawing out differences in perspectives and diverse ranges of meaning on the topic. I also think the dynamic between the co-moderator and I made the participants more comfortable, which may have influenced their willingness to share.

Furthermore, the co-moderator provided feedback on my interviewing skills, and I was able to discuss some preliminary ideas that arose from the interviews at Kalnes school, which were useful in later data analysis phases. Factors like these could potential have added value to the focus group interviews at Ål school. Reflecting back on this I could have postponed the interviews at Ål school so that my co-moderator could have joined me when she was feeling better. Despite these limitations, the focus group interviews at Ål school still produced accounts that were deemed to be of an appropriate quality to address the aims of the research.

In focus group interviews, the interviewer inherently has less control over the data that is produced (Morgan, 1996), where participants are encouraged to talk to each other and express opinions, and the researcher's role in mainly to keep participants on the topic. This interactive nature of focus group interviews sometimes made it difficult for the me to deal with one or several group members dominating the discussion. What sometimes happened was that one student would articulately express their opinions, whereby some members agreed, some either attempted to disagree with the dominant view but in a less articulate manner and some remained completely silent. In some instances, this may have led to some viewpoints potentially overrepresenting some students who were less vocal. It may be that some individual opinions that may in fact have reflected the views of several other participants, went unspoken. It can be difficult to clearly identify individual viewpoints in focus group interviews. As Gibbs (1997) points out, participants in a focus group interview are speaking in a specific context and culture, and it is flawed to assume that individuals are expressing their own definite individual opinions. This may be one factor partly explaining why the findings of the study is dominated by many negative viewpoints, where the positive views are less salient.

Setting homogenous groups, in terms of age, education, and experiences, as was done in the study, can potentially minimise the dominant views overriding other views. However, as Smithson (2000) points out, homogeneity may not always overcome this, and the interviewer has to deal with dominating voices both during the interviews and in the analysis of the data. During the interviews I was conscious of the group dynamic and I tried to appeal to some of the students who were silent, or who did not spontaneously join into the discussion. However, sometimes I also allowed participants to remain silent. As Poland and Pederson (1998: p. 308) Silence is an "enduring feature of human interaction" which may also be present in a research context (cited in Smithson, 2000). My conscious efforts to allow for variation in experiences to be voiced is reflected in the findings. Furthermore, I believe my ability to create rapport with the participation and creating a comfortable interview setting allowed viewpoints to be voiced freely.

An aspect of data collection that may be seen to enhance the validity of the findings was the process of "disconfirming evidence". This process is where the researcher attempts to find evidence that is consistent with or disconfirms views or preliminary themes (Creswell & Miller, 2000). This process was utilised already during the data collection phase. Interesting aspects that were brought up in one interview were asked about in other interviews. For example, in

the first interview at Kalnes school, two students described how portion sizes varied depending on body size and gender. This was an unexpected observation which I wanted to corroborate with the second group interviewed. I tried to do this by asking more generally about how portion sizes were decided, rather than asking a leading question. This allowed me to verify these experiences, finding that other students had similar observations. Another example was how the students at Kalnes school described their experience of not being heard when providing feedback on the school meals. Notes were made about this aspect of not being listened to, and students at Ål school were asked more direct questioned related to this aspect of feedback and being listened to.

8.3 Transcription and Data analysis

Carrying out the interviews and then listening to them and transcribing them myself, as opposed to using an external transcriber, may have enhanced the accuracy of the transcripts. Furthermore, this processed allowed data analysis to commence already at this stage, and I became very familiar with the raw material. If I was unsure of any parts of the transcription, I went back to those specific parts of the audio file immediately after. For example, there were instances where I struggled to hear words or understand exactly what a participant had said, in which case I re-winded the audio file and listened several times until I was able to make out what was said. In the cases I still was unable to make out a word I inserted "[]" rather than guessing the word. According to Kvale and Brinkman (2015), the process of transcription is already a process of interpretation where the researcher makes decisions about where to put commas and full stops, and which words to include and which to omit. This means that the same raw material could be given different interpretations and meaning by different transcribers. In research, reliability refers to the consistency and trustworthiness of the research findings (Kvale & Brinkman, 2012). The reliability of the findings could potentially have been enhanced with multiple transcribers, to be able to compare similarities and interpretations of words or punctuation (Brinkmann, 2012). The reliability of the transcripts could have been strengthened even further by relistening to each audio file again against the final transcripts, however due to time limitations, this was not done.

The findings in the current study portray many negative experiences, and the way data was analysed relied solely on my interpretations of the students' accounts, something that may be a limitation to study. The use of multiple researchers in the analysis of data is a form of

triangulation whereby researchers can enhance the validity of the findings by searching for convergence in the data to form different themes (Creswell & Miller, 2000). This may have uncovered more nuanced interpretations of the students' accounts. This was not done due to resource constraints in the master's project. Nonetheless, my internal and external supervisors supported me in the process of coding and thematising the data through discussions of preliminary themes and crucial decisions made throughout the research process. These discussions helped me to see different connections in the data and to consider different interpretations, sometimes leading to revisions in the themes.

Furthermore, the "disconfirming evidence" procedure, mentioned above, can also be applied in the process of data analysis, where preliminary themes are formed, and the researcher examines all the data to find evidence that either confirms or disconfirms themes. This process can provide further support for the accounts validity because it reflects the multiplicity and complexity of reality (Creswell & Miller, 2000). This was something I tried to be conscious of throughout the analysis and the reporting of the findings, where I paid particular attention to data points that indicated discrepancies or divergent points of view. In practice, the search for disconfirming evidence was difficult because I had the tendency to look for evidence that confirmed my themes rather than disconfirmed them, something that is common for even experienced researchers (Creswell & Miller, 2000). Nonetheless, as Creswell and Miller (2000) point out, disconfirming evidence should not outweigh confirming evidence. The analysis phase was by no means linear, but rather a reflective and iterative process that involved being open to new themes throughout the process and revisiting earlier stages of the analysis to view codes and themes with a "fresh" view. Furthermore, the findings related to participation were theory-laden which means that my interpretations of the data were affected by my theoretical presuppositions. This will have influenced the themes that were developed. The use of alternative theories may have led to different interpretations, and new themes.

Several factors are seen to have strengthened the transparency and reliability of the study. The methods section provides a rich detail on the setting, participants, and data collection procedures, and my reflexivity regarding my role, enhanced the transparency of the study. Furthermore, the use of quotes and the detailed description of the results allows the reader to "hear" the voices of the students (Creswell & Miller, 2000). This vivid description also enables the reader to determine whether the findings are applicable in other contexts (Creswell & Miller, 2000).

9. Conclusions

The study highlights some important, and also at times surprising, aspects relating to how students at Ål school and Kalnes school experience the "Free school meal and sustainable canteens pilot project". Students appear to be positive to the idea of having a free meal offer and acknowledge some of the benefits a free meal can have. This implies that a free meal offer can in fact be valuable to the students in these schools, and potentially others, in Viken county. However, students experience that the meals, and the general canteen offer, often deviates from their food preferences in terms of taste, variation, familiarity, and appearance, which may have negative repercussions on students' acceptance of school meals, and their food behaviour at school. Meeting students' preferences may be one of the main challenges faced when implementing healthy and sustainable school food policies. This is in line with previous research (see Mauer et al., 2022; Eustachio-Colombo et al., 2021; Helsedirektoratet, 2013). Nonetheless, students' food preferences may span both healthy and unhealthy foods, which suggests that aligning school meals with students' preferences may not necessarily have to come at the cost of health or sustainability.

Furthermore, although students seem to have some knowledge and awareness of the sustainability components included in the pilot project, variation was found. Students recognised sustainability as important on a societal level, but do not connect sustainability objectives with their food choices. Increased knowledge and awareness about the sustainability of the food may not be the most critical factor to increase students' intake of sustainable meals. However, if combined with an increased availability of tasty, healthy and sustainable food over an extended period of time, increased knowledge may also support the formation of healthy and sustainable food habits.

The findings also suggest that students experience their level of participation in the pilot project as being low and unfulfilling which is causing tension and having negative impacts on students' overall views of the pilot project. Aspects were highlighted, such as students not having appropriate knowledge of the pilot project and its intentions, and students' views not being heard or taken into account. These aspects may be hindering the students from taking ownership of the pilot project's objectives and deter them from participating any further in the pilot project and future health promotion initiatives. These experiences may also influence the students' acceptance of the school meals and the canteen food. Lastly, neglect of disregard of these crucial aspects of participation may suggest that the pilot project is hindered in being considered truly participatory.

9.1 Implications for practice

If the pilot project aims to reduce the number of students who skip meals, reduce food waste, increase students' intake of healthy and sustainable food, and influence dietary habits into adulthood, aligning healthy and sustainable meals with students' preferences is imperative. Efforts to gain a bettering understanding of what students mean when they say they want variation, and "better taste", and appearance could support the development of meals that use legumes, grains, seasonal, local, organic produce, that are more accepted by the students. Perhaps exploring ways to improve factors like taste and seasoning could be done through constructive dialogue with the students. This may provide greater insight than the current one-way communication format of questionnaires. As pointed out by National Health Directorate (2013), engaging students in dialogue to develop school meal offers that are both healthy and attractive to students, that can compete with nearby shops, may have great utility. Others have also shown ways of working with students' preferences such as taste-testing (Holthe et al., 2011) and involving students in meal preparation, which may influence students' acceptance and intake of healthy meals (Van der Horst et al., 2014). Of course, this may be difficult to implement in practice, and requires leadership and planning on the part of school.

The findings related to how the students view sustainability components of the pilot project may also have some practical implications. Connecting classroom teaching on sustainability may be a way to use the school meals and the canteens as a learning arena, both in terms of health and sustainability (Oostindjer et al., 2017). School meal policies that span beyond changing the food available at school and links education to school meals, may be more successful in creating sustainable dietary habits among students (Eustachio Colombo et al., 2021; Oostindjer et al., 2017). In this way, the school meal and the canteen can be utilised to facilitate learning within all three interdisciplinary themes in the national curriculum of "public health and life skills", "sustainability", and "democracy and citizenship". Again, this requires willingness, and a greater level of coordination and communication between students, the school administration, teachers and the canteen employees.

Lastly, the findings that students have negative experiences of their participation in the pilot project also has implications. Firstly, the findings point to a need to increase students' overall understanding of the pilot project, what its components are and the rationale for them. Greater communication with the students about the pilot project could foster greater understanding and acceptance. It may be that the schools have already tried to do this, but the

findings suggest that students may still have a limited understanding. This could be a crucial step to ensure that students can truly participate in the decisions around the pilot project. If students do not know enough about the pilot project's components or understand the aims, their level of participation is limited to requesting food that falls outside of the pilot project bounds.

The study points to a need to increase the level of student participation in the planning and implementation of the pilot project. Operating at higher levels of Shier's (2001) or Hart's (1992) models of youth participation does not necessitate that all students' requests are implemented, or that adult stakeholders have to give away all decision-making power. Instead, it means that students' views should be given due weight in decisions, along with other factors that have to be taken into account. Aiming for higher levels of active participation could have many advantages such as increased ownership over the pilot projects objectives (such as those related to sustainability) increased acceptance of the objectives and meals, and the motivation and capacity to make healthier and more sustainable choices at school. For example, involving the students in designing alternative methods to measure food waste could be an area that students can participate in. This is not to say that increasing student participation in aspects of planning and implementation is straightforward and without challenges. I want to acknowledge that doing so can require a lot of efforts, creativity and resources on the schools' part. However, I believe that the potential benefits for the students and the pilot project itself can make it worthwhile. Higher levels of student participation can lead to valuable insights from students, and improvements in the overall pilot project, which may facilitate the successful scaling of the initiative to the rest the schools in Viken.

References

Aarestrup, A. K., Krølner, R., Jørgensen, T. S., Evans, A., Due, P., & Tjørnhøj-Thomsen, T. (2014). Implementing a free school-based fruit and vegetable programme: barriers and facilitators experienced by pupils, teachers and produce suppliers in the Boost study. *BMC Public Health*, *14*(1), 1-15.

Alsvik, O. (1991). "Friskere, sterkere, større, renere". Om Carl Schiøtz og helsearbeidet for norske skolebarn. *Hovedoppgave i historie. Oslo: Historisk institutt, Universitetet i Oslo*.

Andresen, A., & Elvbakken, K. T. (2007). From poor law society to the welfare state: school meals in Norway 1890s–1950s. *Journal of Epidemiology & Community Health*, *61*(5), 374-377.

Appleton, K. M., Hemingway, A., Rajska, J., & Hartwell, H. (2018). Repeated exposure and conditioning strategies for increasing vegetable liking and intake: systematic review and meta-analyses of the published literature. *The American journal of clinical nutrition*, *108*(4), 842-856.

Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of planners*, *35*(4), 216-224.

Asada, Y., Hughes, A. G., Read, M., Schwartz, M. B., & Chriqui, J. F. (2017). High School Students' Recommendations to Improve School Food Environments: Insights From a Critical Stakeholder Group. *J Sch Health*, *87*(11), 842-849.

Bailey-Davis, L., Virus, A., McCoy, T. A., Wojtanowski, A., Vander Veur, S. S., & Foster, G. D. (2013). Middle school student and parent perceptions of government-sponsored free school breakfast and consumption: A qualitative inquiry in an urban setting. *Journal of the Academy of Nutrition and Dietetics*, *113*(2), 251-257.

Bakken, A., Frøyland, L. R., & Sletten, M. A. (2016). Sosiale forskjeller i unges liv. Hva sier Ungdata-undersøkelsene?

Benn, J., & Carlsson, M. (2014). Learning through school meals? *Appetite*, *78*, 23-31.

Birch, L., Savage, J. S., & Ventura, A. (2007). Influences on the development of children's eating behaviours: from infancy to adolescence. *Canadian journal of dietetic practice and research: a publication of Dietitians of Canada= Revue canadienne de la pratique et de la recherche en dietetique: une publication des Dietetistes du Canada*, *68*(1), s1.

Blondin, S. A., Djang, H. C., Metayer, N., Anzman-Frasca, S., & Economos, C. D. (2015). 'It's just so much waste.'A qualitative investigation of food waste in a universal free School Breakfast Program. *Public health nutrition*, *18*(9), 1565-1577.

Bolt-Evensen, K., Vik, F. N., Stea, T. H., Klepp, K.-I., & Bere, E. (2018). Consumption of sugar-sweetened beverages and artificially sweetened beverages from childhood to adulthood in relation to socioeconomic status–15 years follow-up in Norway. *International Journal of Behavioral Nutrition and Physical Activity*, *15*(1), 1-9.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. sage.

Brinkmann, K. (2012). *Det kvalitative forskningsintervjuet.* Gyldendal Norsk Forlag.

Brouwer, I. D., van Liere, M. J., de Brauw, A., Dominguez-Salas, P., Herforth, A., Kennedy, G., Lachat, C., Omosa, E. B., Talsma, E. F., Vandevijvere, S., Fanzo, J., & Ruel, M. (2021).

Reverse thinking: taking a healthy diet perspective towards food systems transformations. *Food Security*. https://doi.org/10.1007/s12571-021-01204-5
Bruun Jensen, B., & Simovska, V. (2005). Involving students in learning and health promotion processes-clarifying why? what? and how? *Promotion & Education*, *12*(3-4), 150-156.
Bruun, T., Denison, E. M.-L., Gjersing, L., Husøy, T., Knudsen, A. K. S., & Strand, B. H. (2018). Folkehelserapporten-kortversjon. Helsetilstanden i Norge 2018.
Bugge, A. B. (2007). Ungdoms skolematvaner. Refleksjon, reaksjon eller interaksjon?
Burlingame, B., & Dernini, S. (2012). *Sustainable diets and biodiversity directions and solutions for policy, research and action*. FAO Headquarters, Rome.
Burrows, T., Goldman, S., Pursey, K., & Lim, R. (2017). Is there an association between dietary intake and academic achievement: a systematic review. *Journal of Human Nutrition and Dietetics*, *30*(2), 117-140.
Chortatos, A., Terragni, L., Henjum, S., Gjertsen, M., Torheim, L. E., & Gebremariam, M. K. (2018). Consumption habits of school canteen and non-canteen users among Norwegian young adolescents: a mixed method analysis. *BMC Pediatrics*, *18*(1), 328. https://doi.org/10.1186/s12887-018-1299-0
Clarke, V., Braun, V., & Hayfield, N. (2015). Thematic analysis. *Qualitative psychology: A practical guide to research methods*, *222*, 248.
Colombo, P. E., Patterson, E., Lindroos, A. K., Parlesak, A., & Elinder, L. S. (2020). Sustainable and acceptable school meals through optimization analysis: An intervention study. *Nutrition journal*, *19*(1), 1-15.
Craigie, A. M., Lake, A. A., Kelly, S. A., Adamson, A. J., & Mathers, J. C. (2011). Tracking of obesity-related behaviours from childhood to adulthood: a systematic review. *Maturitas*, *70*(3), 266-284.
Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, *39*(3), 124-130.
Dahl, E., Bergsli, H., & van der Wel, K. (2014). Sosial ulikhet i helse: En norsk kunnskapsoversikt.
Dahl, T., & Jensberg, H. (2011). *Kost i skole og barnehage og betydningen for helse og læring: En kunnskapsoversikt*. Nordisk ministerråd.
Desa, U. (2016). Transforming our world: The 2030 agenda for sustainable development.
Elstad, J., & Pedersen, A. (2012). Fører dårlig familieøkonomi til flere subjektive helseplager blant ungdom. *Tidsskrift for velferdsforskning*, *15*(2), 78-92.
Engdahl, I. (2019). OMEP policy forum: UN convention on the rights of the child has become policy in many countries. *International Journal of Early Childhood*, *51*(3), 259-264.
Eustachio Colombo, P., Elinder, L. S., Patterson, E., Parlesak, A., Lindroos, A. K., & Andermo, S. (2021). Barriers and facilitators to successful implementation of sustainable school meals: a qualitative study of the OPTIMAT™-intervention. *International Journal of Behavioral Nutrition and Physical Activity*, *18*(1), 89.
FAO. (2018). *Sustainable Food Systems – Concept and Framework*. FAO. http://www.fao.org/3/ca2079en/CA2079EN.pdf
FAO et al. (2021). *The State of Food Security and Nutrition in the World 2021*. FAO.
Forskningsrådet. (2018). *Hva spiser elevene på skolen? Rapport fra Forskningskampanjen*
Fossheim, H., Hølen, J., & Ingierd, H. (2013). Barn i forskning Etiske dimensjoner. *Forskningsetiske komiteer*.

Francis, J. E., & Davis, T. (2015). Adolescents' sustainability concerns and reasons for not consuming sustainably. *International Journal of Consumer Studies*, *39*(1), 43-50.
Frøyland, L. R. (2011). Unges syn på deltakelse og innflytelse i skolen, lokalpolitikken og sivilsamfunnet.
Fylkesrådet. (2021). *Bærekraftsrapport for Viken fylkeskommune 2020* [Report]. https://viken.no/_f/p1/i9936b44a-a9ae-4a6f-8906 17f9d77d7289/barekraftsrapporten-2020.pdf
Garnett, T. (2011). Where are the best opportunities for reducing greenhouse gas emissions in the food system (including the food chain)? *Food Policy*, *36*, S23-S32.
Garnett, T., Mathewson, S., Angelides, P., & Borthwick, F. (2015). Policies and actions to shift eating patterns: what works. *Foresight*, *515*(7528), 518-522.
Gibbs, A. (2012). Focus groups and group interviews. *Research methods and methodologies in education*, 186-192.
Gorski, M. T., & Roberto, C. A. (2015). Public health policies to encourage healthy eating habits: recent perspectives. *J Healthc Leadersh*, *7*, 81-90. https://doi.org/10.2147/jhl.S69188
Griebler, U., & Nowak, P. (2012). Student councils: a tool for health promoting schools? Characteristics and effects. *Health Education*.
Griebler, U., Rojatz, D., Simovska, V., & Forster, R. (2017). Effects of student participation in school health promotion: a systematic review. *Health promotion international*, *32*(2), 195-206.
Grøholt, E., Bøhler, L., & Hånes, H. (2018). Folkehelserapporten–helsetilstanden i Norge i 2018. *Oslo: Folkehelseinstituttet*.
Haavet, I. E. (1996). *Maten på bordet: femti år med Statens ernæringsråd*. Statens ernæringsråd.
Hamdan, S., Story, M., French, S. A., Fulkerson, J. A., & Nelson, H. (2005). Perceptions of adolescents involved in promoting lower-fat foods in schools: associations with level of involvement. *Journal of the American Dietetic Association*, *105*(2), 247-251.
Hansen, L., Myhre, J., & Andersen, L. (2017). UNGKOST 3 Landsomfattende kostholdsundersøkelse blant 4-åringer i Norge, 2016. *Helsedirektoratet, Mattilsynet og Universitetet i Oslo, Oslo*.
Hansen, L., Myhre, J., Johansen, A., Paulsen, M., & Andersen, L. (2015). UNGKOST 3 Landsomfattende kostholdsundersøkelse blant elever i 4. og 8. klasse i Norge. In: Oslo.
Hart, R. A. (1992). *Children's participation: From tokenism to citizenship*.
Haug, E., Robson-Wold, C., Helland, T., Jåstad, A., Torsheim, T., Fismen, A., Wold, B., & Samdal, O. (2020). Barn og unges helse og trivsel: Forekomst og sosial ulikhet i Norge og Norden. *Bergen: Institutt for helse, miljø, og likeverd, Universitetet i Bergen*.
He, C., Breiting, S., & Perez-Cueto, F. J. (2012). Effect of organic school meals to promote healthy diet in 11-13 year old children. A mixed methods study in four Danish public schools. *Appetite*, *59*(3), 866-876.
Helse- og omsorgsdepartementet. (1995). *Forskrift om miljørettet helsevern i skoler m.v,* (LOV-1998-07-17-61). https://lovdata.no/dokument/SF/forskrift/1995-12-01-928
Helse- og omsorgsdepartementet. (2011). *Lov om folkehelsearbeid* (LOV-2011-06-24-29). https://lovdata.no/dokument/NL/lov/2011-06-24-29?q=Folkehelseloven

Helse- og omsorgsdepartementet. (2015). *Mestring og muligheter.* . (19 (2014-2015)). Oslo Retrieved from https://www.regjeringen.no/no/dokumenter/meld.-st.-19-2014-2015/id2402807/

Helse- og omsorgsdepartementet (2017). Nasjonal handlingsplan for bedre kosthold (2017–2021) - Sunt kosthold, måltidsglede og god helse for alle! . https://www.regjeringen.no/contentassets/fab53cd681b247bfa8c03a3767c75e66/handlingsplan_kosthold_2017-2021.pdf

Helsedirektoratet. (2013). Mat og måltider i grunnskolen: En kvantitativ landsdekkende undersøkelseblant kontaktlærere, skoleledere og ansvarlige for kantine/matbod. https://www.helsedirektoratet.no/tema/mat-og-maltider-i-skolen

Helsedirektoratet. (2015). *Nasjonal faglig retningslinje for mat og måltider i skolen*

Del 1: Barneskole og skolefritidsordning. https://helsedirektoratet.no/retningslinjer/mat-og-maltider-i-skolen.

Helsedirektoratet. (2016, October 24, 2016). *Kostrådene*. Retrieved 15-04 from https://www.helsedirektoratet.no/faglige-rad/kostradene-og naeringsstoffer/kostrad-for-befolkningen

Helsedirektoratet, S.-o. (2005). Sosial-og helsedirektoratets handlingsplan mot sosiale ulikheter i helse. Gradientutfordringen. In: IS-1229). Oslo. Hentet fra http://www. helsedirketoratet.no.

Hernandez, K., Engler-Stringer, R., Kirk, S., Wittman, H., & McNicholl, S. (2018). The case for a Canadian national school food program. *Canadian Food Studies / La Revue canadienne des études sur l'alimentation*, *5*(3), 208-229.

Herrero, M., Hugas, M., Lele, U., Wira, A., & Torero, M. (2021). Shift to Healthy and Sustainable Consumption Patterns.

Holthe, A., Larsen, T., & Samdal, O. (2011). Understanding barriers to implementing the Norwegian national guidelines for healthy school meals: a case study involving three secondary schools. *Maternal & child nutrition*, *7*(3), 315-327.

Hoppe, M. J., Wells, E. A., Morrison, D. M., Gillmore, M. R., & Wilsdon, A. (1995). Using focus groups to discuss sensitive topics with children. *Evaluation review*, *19*(1), 102-114.

Hoyland, A., Dye, L., & Lawton, C. L. (2009). A systematic review of the effect of breakfast on the cognitive performance of children and adolescents. *Nutrition research reviews*, *22*(2), 220-243.

Illøkken, E, K., Johannessen, B., Barker, M. E., Hardy-Johnson, P., Øverby, N. C., & Vik, F. N. (2021). Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway. *Food & nutrition research*, *65*, 10.29219/fnr.v29265.27702.

Illøkken, K. E., Bere, E., Øverby, N. C., Høiland, R., Petersson, K. O., & Vik, F. N. (2017). Intervention study on school meal habits in Norwegian 10–12-year-old children. *Scandinavian Journal of Public Health*, *45*(5), 485-491.

Illøkken, K. E., Øverby, N. C., Johannessen, B., & Vik, F. N. (2021). Possible Effects of a Free School Meal on School Environment: The School Meal Intervention in Norway. *Journal of the International Society for Teacher Education*, *25*(1).

Jensen, B. B. (1997). A case of two paradigms within health education. *Health education research*, *12*(4), 419-428.

Jensen, B. B., & Schnack, K. (1997). The action competence approach in environmental education. *Environmental education research*, *3*(2), 163-178.

Jones, A. D., Hoey, L., Blesh, J., Miller, L., Green, A., & Shapiro, L. F. (2016). A systematic review of the measurement of sustainable diets. *Advances in nutrition*, *7*(4), 641-664.

Kamenidou, I. C., Mamalis, S. A., Pavlidis, S., & Bara, E.-Z. G. (2019). Segmenting the generation Z cohort university students based on sustainable food consumption behavior: A preliminary study. *Sustainability*, *11*(3), 837.

Kitzinger, J. (1995). Qualitative research: introducing focus groups. *BMJ*, *311*(7000), 299-302.

Kolve, C. S., Helleve, A., & Bere, E. T. (2022). Gratis skolemat i ungdomsskolen–nasjonal kartlegging av skolematordninger og utprøving av enkel modell med et varmt måltid.

Krueger, R., & Casey, M. (2015). Styles of focus group research. *Focus groups: a practical guide for applied research. 5th ed. Thousand Oaks: Sage*.

Krueger, R. A., & Casey, M. A. (2002). Designing and conducting focus group interviews. In: Citeseer.

Kunnskapsdepartementet (1998). Lov om grunnskolen og den vidaregåande opplæringa. LOV-1998-07-17-61. https://lovdata.no/dokument/NL/lov/1998-07-17-61

Kvale, S., & Brinkmann, S. (2015). Det kvalitative forskningsintervju: Gyldendal akademisk.

Lazzeri, G., Ahluwalia, N., Niclasen, B., Pammolli, A., Vereecken, C., Rasmussen, M., Pedersen, T. P., & Kelly, C. (2016). Trends from 2002 to 2010 in daily breakfast consumption and its socio-demographic correlates in adolescents across 31 countries participating in the HBSC study. *PLoS One*, *11*(3), e0151052.

Lien, N., Lytle, L. A., & Klepp, K.-I. (2001). Stability in consumption of fruit, vegetables, and sugary foods in a cohort from age 14 to age 21. *Preventive medicine*, *33*(3), 217-226.

Lien, O. (1936). Noen betraktninger over skolebarns ernæring. Hvorledes en kostreform kan innføres i skolene også på landsbygden. *Quelques réflexions autour de la nutrition des écoliers. Comment réformer le régime alimentaire aussi dans les écoles rurales»], Tidsskrift for den norske lægeforening*, *56*, 540-547.

Lindgren, E., Harris, F., Dangour, A. D., Gasparatos, A., Hiramatsu, M., Javadi, F., Loken, B., Murakami, T., Scheelbeek, P., & Haines, A. (2018). Sustainable food systems—a health perspective. *Sustainability Science*, *13*(6), 1505-1517.

Lombardini, C., & Lankoski, L. (2013). Forced choice restriction in promoting sustainable food consumption: Intended and unintended effects of the mandatory vegetarian day in Helsinki schools. *Journal of Consumer Policy*, *36*(2), 159-178.

Lyngø, I. J. (2003). Vitaminer! Kultur og vitenskap i mellomkrigstidens kostholdspropaganda. *Dr. art., Oslo: Det humanistiske fakultet, Universitetet i Oslo*.

Mager, U., & Nowak, P. (2012). Effects of student participation in decision making at school. A systematic review and synthesis of empirical research. *Educational research review*, *7*(1), 38-61.

Malila, R.-M. (2020). Perceptions of Finnish adolescents on ecologically sustainable food consumption.

Malterud, K. (2017). *Kvalitative forskningsmetoder for medisin og helsefag: en innføring*. Universitetsforlaget.

Matvalget. (2020). *Om Matvalget* Retrieved 13.10.21 from https://www.matvalget.no/om-matvalget/

Mauer, S., Torheim, L. E., & Terragni, L. (2022). Childrens' Participation in Free School Meals A Qualitative Study Among Pupils, Parents and Teachers. *Nutrients,* 14(6): 1282.

Maxwell, J. (1992). Understanding and validity in qualitative research. *Harvard educational review*, *62*(3), 279-301.
Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Sage publications.
Merriam, S. B. (2002). Introduction to qualitative research. *Qualitative research in practice: Examples for discussion and analysis*, *1*(1), 1-17.
Meyer, H. E., Vollrath, & Torgersen, M. E. M. (2017, 03.11.2017). *Overweight and obesity in Norway*. Norwegian Insitute of Public Health. https://www.fhi.no/en/op/hin/health-disease/overweight-and-obesity-in-norway---/#about-this-page
Micha, R., Karageorgou, D., Bakogianni, I., Trichia, E., Whitsel, L. P., Story, M., Peñalvo, J. L., & Mozaffarian, D. (2018). Effectiveness of school food environment policies on children's dietary behaviors: A systematic review and meta-analysis. *PLoS One*, *13*(3), e0194555.
Mikkilä, V., Räsänen, L., Raitakari, O., Pietinen, P., & Viikari, J. (2005). Consistent dietary patterns identified from childhood to adulthood: the cardiovascular risk in Young Finns Study. *British journal of nutrition*, *93*(6), 923-931.
Moreno, L. A., Rodriguez, G., Fleta, J., Bueno-Lozano, M., Lazaro, A., & Bueno, G. (2010). Trends of dietary habits in adolescents. *Critical Reviews in Food Science and Nutrition*, *50*(2), 106-112.
Morgan, D. L. (1996). *Focus groups as qualitative research* (Vol. 16). Sage publications.
Nasjonalt råd for ernæring. (2017). *Bærekraftig kosthold - vurdering av de norske kostrådene i et bærekraftperspektiv.* O. N. r. f. ernæring.
Nordin, L., Jensen, J., & Simovska, V. (2010). Unges deltagelse i sundhedsfremme: hvad siger litteraturen.[Young people's participation in health promotion: what does the literature say]. *Cursiv*, *5*, 77-101.
Oostindjer, M., Amdam, G. V., & Egelandsdal, B. (2015). Getting Norway to eat healthier: What are the opportunities? *Scandinavian Journal of Public Health*, *43*(1), 66-75.
Oostindjer, M., Aschemann-Witzel, J., Wang, Q., Skuland, S. E., Egelandsdal, B., Amdam, G. V., Schjøll, A., Pachucki, M. C., Rozin, P., Stein, J., Lengard Almli, V., & Van Kleef, E. (2017). Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children´s diet and food consumption? A cross-national comparative perspective. *Critical Reviews in Food Science and Nutrition*, *57*(18), 3942-3958.
Orme, J., Jones, M., Salmon, D., Weitkamp, E., & Kimberlee, R. (2013). A process evaluation of student participation in a whole school food programme. *Health Education*, *113*(3), 168-182.
Payán, D. D., Sloane, D. C., Illum, J., Farris, T., & Lewis, L. B. (2017). Perceived barriers and facilitators to healthy eating and school lunch meals among adolescents: A qualitative study. *American journal of health behavior*, *41*(5), 661-669.
Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, *52*(2), 126-136.
Regjeringen. (2021). *Hurdalsplattformen. For en regjering utgått fra Arbeiderpartiet og Senterpartiet 2021-2025*. Retrieved from https://www.regjeringen.no/contentassets/cb0adb6c6fee428caa81bd5b339501b0no/pdfs/hurdalsplattformen.pdf

Ritchie, H., & Roser, M. (2020). Environmental impacts of food production. *Our world in data*. Published online at https://ourworldindata.org/environmental-impacts-of food?utm_source=jeremycherfas&utm_medium=email&utm_campaign=eat-this newsletter-132-underserved

Ruge, D., Nielsen, M. K., Mikkelsen, B. E., & Bruun-Jensen, B. (2016). Examining participation in relation to students' development of health-related action competence in a school food setting: LOMA case study. *Health Education*.

Sandbæk, M., & Einarsson, J. H. (2008). Barn og unge rapporterer til FN om rettighetene sine.

Scott, P. (2017). Global panel on agriculture and food systems for nutrition: food systems and diets: facing the challenges of the 21st century: London, UK, 2016 (ISBN 978-0-9956228-0-7), 132pp. http://glopan.org/sites/default/files/ForesightReport.pdf. *Food Security*, *9*.

Sejersted, F. (2005). Sosialdemokratiets tidsalder–Norge og Sverige I det 20. *Århundre. Oslo: Pax*.

Shier, H. (2001). Pathways to participation: Openings, opportunities and obligations. *Children & society*, *15*(2), 107-117.

Simovska, V. (2007). The changing meanings of participation in school-based health education and health promotion: the participants' voices. *Health education research*, *22*(6), 864-878.

Solemdal, L., & Serikstad, G. L. (2015). Økologisk landbruk sin spydspissfunksjon. NIBIO Rapport, Vol. 1, Nr. 87. http://orgprints.org/30179/

Somech, A. (2002). Explicating the complexity of participative management: An investigation of multiple dimensions. *Educational Administration Quarterly*, *38*(3), 341-371.

Statistics Norway. (2019). *Pupils in primary and lower secondary school* https://www.ssb.no/en/utdanning/statistikker/utgrs.

Strand, B. H., & Næss, Ø. (2007). Forskning på sosial ulikhet i helse i Norge. *Pá liv og død*, 74.

Thagaard, T. (2018). Systematikk og innlevelse: en innføring i kvalitative metoder (5. utg.) Fagbokforlaget.

The Norwegian Directorate for Education and Training. (2020, 09.06.2020). *Hva er tverrfaglige temaer?* Udir. https://www.udir.no/laring-og-trivsel/lareplanverket/stotte/hva-er-tverrfaglige-temaer/

Toschke, A. M., Küchenhoff, H., Koletzko, B., & Von Kries, R. (2005). Meal frequency and childhood obesity. *Obesity research*, *13*(11), 1932-1938.

Tufte Bere, E. (2021). *Presentation; Erfaringer fra pilotprosjektet "Utvikling av en nasjonal modell for skolemat" og noen første resultat fra skolematundersøkelsen i Viken*. Folkehelseinstituttet.

UNICEF. (1989). Convention on the Rights of the Child. Available online at: https://www.unicef.org/child-rights-convention/convention-text

Van der Horst, K., Ferrage, A., & Rytz, A. (2014). Involving children in meal preparation. Effects on food intake. *Appetite*, *79*, 18-24.

Vik, F. N., Heslien, K. E., Van Lippevelde, W., & Øverby, N. C. (2020). Effect of a free healthy school meal on fruit, vegetables and unhealthy snacks intake in Norwegian 10-to 12-year-old children. *BMC Public Health*, *20*(1), 1-8.

Vik, F. N., Van Lippevelde, W., & Øverby, N. C. (2019). Free school meals as an approach to reduce health inequalities among 10–12- year-old Norwegian children. *BMC Public Health*, *19*(1), 951.

Vikenfylkeskommune. (2020). *Strategi for helsefremmende skoler 2021-2023*.
Vikenfylkeskommune. (2021). 13 skoler valgt ut til gratis skolematprosjekt https://viken.no/tjenester/skole-og-opplaring/aktuelt-skole-og-opplaring/13-skoler-valgt-ut-til-gratis-skolematprosjekt.87372.aspx
Vikenfylkeskommune. (2022a). *Ål Videregående Skole*. Vikenfylkeskommune. https://viken.no/al-vgs/om-skolen/
Vikenfylkeskommune. (2022b). *Kalnes Videregående Skole*. https://viken.no/kalnes-vgs/om-skolen/
Weaver-Hightower, M. B. (2011). Why education researchers should take school food seriously. *Educational researcher*, *40*(1), 15-21.
Wikipedia. (2022a, 29.03.22). *Ål* Wikipedia. https://no.wikipedia.org/wiki/%C3%85l
Wikipedia. (2022b). *Sarpsborg*. Wikipedia. https://no.wikipedia.org/wiki/Sarpsborg
Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L. J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J. A., De Vries, W., Majele Sibanda, L., Afshin, A., Chaudhary, A., Herrero, M., Agustina, R., Branca, F., Lartey, A., Fan, S., Crona, B., Fox, E., Bignet, V., Troell, M., Lindahl, T., Singh, S., Cornell, S. E., Srinath Reddy, K., Narain, S., Nishtar, S., & Murray, C. J. L. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, *393*(10170), 447-492. https://doi.org/https://doi.org/10.1016/S0140-6736(18)31788-4
World Health Organization. (2003). *Diet, nutrition, and the prevention of chronic diseases: report of a joint WHO/FAO expert consultation* (Vol. 916). World Health Organization.
World Health Organization. (2014). *Global status report on noncommunicable diseases 2014*. World Health Organization.
Ziegler, A. M., Kasprzak, C. M., Mansouri, T. H., Gregory, A. M., 2nd, Barich, R. A., Hatzinger, L. A., Leone, L. A., & Temple, J. L. (2021). An Ecological Perspective of Food Choice and Eating Autonomy Among Adolescents. *Front Psychol*, *12*, 654139.

Appendices

Appendix A: Information sheet to school management

Norges miljø- og biovitenskapelige universitet

Vil dere bidra med informanter til to masterprosjekter som omhandler gratis skolemåltid og bærekraftige kantiner?

Mit navn er Caroline Schwanenflugel og jeg er student ved NMBU hvor jeg er på sidste år av en master i Folkehelsevitenskap. Jeg ønsker å invitere deres skole til å bidra til mit masterprosjektet som skal gå i dybden på Viken's gratis skolemåltid og bærekraftige kantiner satsing. Målet med oppgaven er å undersøke elevenes opplevelse av skolematsatsingenen og dets bærekæftsperspektiv, samt deres medvirkning i processene rundt satsningen. Studien ønsker å trekke frem elevers stemme, da de er særlig vigtige aktører i skolen. De følgende problemstillinger vil belyses;

I hvilket omfang har eleverne deltaget i udforming og implementering af gratis skolemat og bærekræftig kantine satsing, og i hvilket omfang oplever de ejerskab til bærekæftsmålene til satsingen?
(i) I hvilken grad har bærekraftsmålene til satsingen resonans hos eleverne?
(ii) Hvordan har elevene medvirket eller vært delaktig i planlegging, implementering, og evaluering av satsingen?
(iii) Hvilke muligheder ser eleverne for større deltagelse og øget ejerskab over programmet og dets mål?

Bestillingen til skolerne

*Hvad***:** Studien vil benytte kvalitativ metode i form av gruppe interviewer. Jeg søker 2 skoler som er kommet godt i gang med gratis skolemåltid og bærekræftige kantiner. Der vil gennemføre 2 gruppeinterviews på hver skole, på max 1 times varighed hver. Interviewen skal gerne tage sted på skolen, i løbet av skolen dagen.

Hvem: Hver gruppeinterview vil bestå av 5-7 elever. En gruppe fra VG1 og en fra VG2, som har modtaget gratis skole måltid og bærekræftig kantine ordningen. Elever som har været en del af projektgruppe for satsingen er også aktuelle at høre fra.

Hvornår: Rekruttering av eleverne skal gerne begynde før jul og være færdig i starten av januar 2022. Interviewene skal udføres i løbet af januar og helst være færdig inden midten av februar 2022. Opgaven skal leveres d. 15 Maj.

Hvad jeg ønsker fra skolerne:

- Hjælp til at rekruttere elever.
- En kontakt person på skolen som kan tage imod mig på interview dagen
- Videreformidling av projektet til eventuelle lærer med hensyn til at interviewene foregår i skoletiden.
- Adgang til skolen og bruk av lokale til interviewene

Hvad får skolen ud af at blive med?

Studien vil gå i dybden på elevernes perspektiv på satsingene. Den indsigt kan være nyttig for skolerne for at finde ud av hvad som eleverne mener er blevet gjort bra indtil videre og hvor der er plads til forbedring for at satsingen træffer den primære målgruppe.

Resultaterne fra studien vil blive brugt i masteropgaven som skrives på engelsk. De vil også blive delt med Folkehelseinstituttet for at bidrage til deres evaluering av skolematsatsingen.
For at skolerne kan gøre nytte av resultaterne vil en kort rapport blive produseret til skolerne kort tid efter dataindsamling og analyse har forekommet.

Personvern

Intervjuene vil bli tatt opp med lydopptaker som lagrer krypterte filer. Prosjektene er meldt til Norsk Senter for Forskningsdata (NSD). Alle data som samles inn vil bli behandlet konfidensielt, i henhold til personopplysningsloven, og vil kun bli benyttet til studienes formål. Informasjon kan ikke spores tilbake til deltakerne. Alle som ønsker å delta vil motta et informasjonsskriv med nærmere informasjon, og vil bli bedt om å signere en samtykkeerklæring som de kan trekke når som helst.

Med vennlig hilsen,

Caroline Schwanenflugel

Appendix B: Interview guide

Intervjueguide
Interviewer: Caroline Schwanenflugel

Dato:

Sted:

Intervjue kode/nr:

Introduktion

- Kort beskrivelse av master project: Som dere har fået vite så skriver en master om Viken's gratis skolemåltid og bærekraftig kantiner pilot og jeg er især interesseret i at høre eleverne's oplevelse av denne.
- Jeg vil kort sige lidt om hvordan en gruppe interview forgår:
    - Alle trænger ikke svare et og et på spørgsmålene
    - gerne snak til hverandre og diskuttere rundt spørgsmålene
    - semi-struktureret så det er ok om man viger væk fra spørgsmålene lidt eller kommer tilbage til forrige spørgsmål
- Samtykke kan trækkes når som helst og dere vil være konfidensielle

Tema	Spørgsmål
Åbning	• Hvad har dere spist i dag? • Hvad spiser dere på en vanlig skole dag?/hvad plejer dere at spise? • Kan dere sige lidt om hvad som er vigtigt for dere når det gælder det mat i spiser?
Bærekrafts perspektivet	• Hvad tænker dere om hvordan mat er produseret? Er det vigtigt for dere? • Hvad tænker dere om at kaste mat?Tror i dere kaster mye mat? Opplever dere at skulen kaster mye mat? • Hvad tænker dere om økologisk mat? Er det noget i har kendskap til? • Hvordan forstår dere begrepet bærekraft? • Hvad er nogle ord dere kommer på når dere høre ordet? • Er det (bærekraft) noget dere tænker på med det mat i spiser? -er det vigtigt for dere? • Har dere haft noget om mat og bærekraftig på skolen?

	• Hvad tænker dere skal til for at bærekraft bliver vigtigere når det kommer til det mat dere spiser?
Bærekraftige kantiner og gratis skolemåltid	• Kan dere fortælle lidt om hvordan dere oplever kantinen på denne skole? • Hvad synes dere om det gratis måltid dere får? • Hvad med kantines generelle mat tilbud? • Kan dere fortælle mig lidt hvad dere ved om det gratis skolemåltid og bærekraftig kantine pilot/projekt som skolen er med på? • Har den gratis måltids pilot påvirket jer? På hvilken måder? (spise vaner, sosialt etc?) • Hvis dere kunne få bestemme, hvordan ville kantinen set ut? (matten, sosiale, omigivelser etc) • Hvordan syns dere skolemåltidet burde være og organiseres slik at flest mulig elever benytter seg av det? • Har dere noen tanker rundt hvorvidt man selv har et ansvar for å gjøre bærekraftige valg? (relatert til å være en bevisst forbruker, political consumerism) • Gjør dere valg rundt hva og hvordan dere handler inn og velger mat og andre «produkter» i eget liv.
Medvirkning i projektet	• Har dere været involveret i organisering rundt skolemåltid og kantinen? • Hvis ja: hvordan har dere oplevet denne involvering? • Har dere en oplevelse av at andre elever har været involveret i processet? hvordan? • Hvis dere har vært involvert, opplever dere at dere har fått informasjon og kunnskap om hva bærekraftig mat er? Og om de andre rammer knyttet til gratis skolemåltidet som budsjettramme, at det skal være sunt, osv. • Dette er et prosjekt for å prøve ut sunn og bærekraftig gratis skolemåltid til maks 15 kr. Hva tenker dere rundt at det gratis skoelmåltidet skal oppfylle disse kravene og har dere et ønske om å bidra til dette. • I hvilken grad oplever dere at skolen sørger for at jeres meninger om skolemåltid eller kantinen skal blive hørt? • Har dere lyst til at have en indflydelse? – hvad kunne i tænke jer at være involveret i? Hvad kunne i tænke jer at bestemme/medbestemme?

Appendix C: Information sheet and consent form for students

Norges miljø- og biovitenskapelige universitet

Vil du deltage I et forskningsprojektet; Oplevelser av Viken Fylke gratis skolemat- en kvalitative studie om elevers oplevelse av bærekræftig, sunt skolemat og medvirkning'.

Formål

Projektet for gratis skolemat I Viken blev vedtaget i våren 2020, for at give elever på de udvalgte skoler et gratis skolemåltid som både er sundt og bærekraftig. Folkehelseinstituttet samarbejder sammen med Viken Fylkeskommune for at evaluere denne satsing. Denne studie er en masteropgave fra Norges Miljø- og biovitenskapenlig universitet (NMBU) som skal bidrage til evaluering. Studien vil se på elevers oplevelse af skolematsatsingen og i hvilken grad de har været involveret i udforming av satsingen. Yderlig er den interesseret i at undersøge i hvilken grad skolemat satsingens bærekraftsmål resonerer med eleverne. Studien ønsker at trække frem elevers stemme da de er især vigtige aktører i skolen.

Hvem er ansvarlig for forskningsprojektet?
Forskningsprosjektet er en del av en masteroppgave fra Norges miljø- og biovitenskapelige universitet (NMBU) ved udlysning fra Folkehelseinstituttet.

Hvorfor får du spørgsmål om at delta?
Du får spørgsmål om at deltage fordi du er elev mellem 16-19 år på en af de skoler som er en del af satsingen på gratis skolemat og bærekreftig kantiner i Viken Fylke. Din oplevelse og dit indspil kan give nytte indsigt til hvordan skolemat satsingen kan udvikles.

Hvad innebærer det for dig at deltage?
Inhenting av information vil forgå igennem semi-struktureret gruppe intervjuer. Informationen som bliver delt i gruppe intervjuerne vil blive tatt opp av en ikke-digital lydopptaker som er i tråd med nye GDPR reglementet fra 2018. Under intervjuerne vil der blive taget feltnotater.

Hvis du vælger at deltage vil det innebære at du bliver med i et gruppe intervju som vil bestå af 5-6 af dine medstuderende og vil vare max 1 time. Intervjuen vil innholde spørgsmål blant andet om hvordan du oplever skolemåltidene og hvordan du mener det kunne forbedres. Da dette er en gruppe intervju legges der op til en naturlig samtale rundt disse temaer, blant deltakerne i intervjuen.

Denne samtale vil derefter blive transkriberet og analyseret og lagret på et sikkert sted på NMBU's sin plattform, og ikke på en privat enhet.

Det er frivilligt at deltage
Det er helt frivilligt at deltage i projektet. Du kan trekke dig når som helst i processet, uden at du oppgi noen grunn. Alle dine personligeoplysninger vil da blive slettet. Det vil ikke føre til nogle negative konsekvenser om du velger at trekke dig.

Personvern- Hvordan opbevare og bruger vi dine oplysninger?
Dine opplysninger om deg vil blive brugt til de formålene vi har beskrevet tidligere. Vi vil behandle dine opplysninger konfidensielt og i samvar med personvernregelverket. De som vil have tilgang til den information som bliver samlet ind vil være student, Caroline Schwanenflugel, vejleder Pavel Grabalov, og ekstern veileder ved Folkehelseinstituttet, Arnfinn Helleve.

Alle opplysninger og information som vil blive samlet ind vil blive lagret på NMBU sin OneDrive som er sikker og passordbeskyttet. Det vil blive sikret at all information som hentes inn ikke kan tilbakevises til deltakerne, og navn, alder eller andre identifiserende information vil blive annonymiseret eller fjernet i den endelige fremstilling af dataen.

Når dataen er inhentet og analyseret vil der skrives en rapport. Denne vil blive delt med ulike aktører blant andet skoleledelse, FHI, NMBU, elever, og andre. Det skal igen understreges at alt indentifiserende information vil blive anonymiseret i den endelige fremstilling.

Før den bliver delt med andre vil du få muligheden for at se rapporten og komme med ændring eller trække tilbage noget som du har sagt.

Hvad sker med dine oplysningerne når vi afslutter forsnkingsprojektet?
Plannen er at studien skal være færdig til vår 2022. Når den afsluttes vil data som blev samlet lagres ind til d. 31 August 2022, hvor de derefter slettes. Dette er for at sikre at man kan etterprøve resultatet. All information vil være konfidensiel og ville ikke kunne spores tilbage til deltagerne.

Dine rettigheter
Så længe du kan indentifiseres i datamaterialet har du rett til at få se hvilken personopplysninger er registeret om dig, samt få udleveret en kopi av disse. Du har rett til at få rettet eller slettet personopplysninger om deg, og du kan sende en klage til Datatilsynet om behandlingen av dine personopplysninger.

Hvad giver os ret til at behandle personopplysninger om dig?
Projektet er meldt ind og godkendt av Norsk senter for forsknings data

Hvor kan jeg finde ud af mere?
Hvis du har spørgsmål eller ønsker at vide mere så tage kontakt med Caroline Schwanenflugel; +4542416010 eller på e-post: caroline.schwanenflugel@nmbu.no

Hvis du har spørgsmål angående NSD vuderingen af projektet så ta kontakt til NSD – Norsk senter for forskningsdata AS på epost (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Samtykkeerklæring

Jeg har modtaget og forstått information om projektet og har fået annleding til at stille spørgsmål. Jeg samtykker til at:

☐ Delta i projektet

☐ Delta i gruppe interview

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

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(Signert av prosjektdeltaker, dato)

Appendix D: NSD Assessment

NSD NORSK SENTER FOR FORSKNINGSDATA

Vurdering

Referansenummer

164296

Prosjekttittel

Exploring High School Students Perceptions of the Sustainable Free School Meal Programme In Viken County.

Behandlingsansvarlig institusjon

Norges miljø- og biovitenskapelige universitet – NMBU / Fakultet for landskap og samfunn / Institutt for folkehelsevitenskap

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Sheri Lee Bastien , sheri.lee.bastien@nmbu.no, tlf: 90265363

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student Caroline Schwanenflugel, caroline.schwanenflugel@nmbu.no, tlf: +4542416010

Prosjektperiode

01.12.2021 - 31.08.2022

Vurdering (1)

19.11.2021 - Vurdert

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet med vedlegg den 19.11.2021. Behandlingen kan starte.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 31.08.2022.

LOVLIG GRUNNLAG
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake. Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER
NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i
 personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
NSD vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20).

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.
MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: https://www.nsd.no/personverntjenester/fylle-ut- meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema Du må vente på svar fra NSD før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos NSD: Henning Levold Lykke til med prosjektet!

Norges miljø- og biovitenskapelige universitet
Noregs miljø- og biovitskapelege universitet
Norwegian University of Life Sciences

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