Academic freedom and knowledge-based decisions amid a crisis

Insights from Norway during the Covid-19 lockdown

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List of abbreviations and central terms

Covid-19: A disease caused by the virus SARS-CoV-2 (FDA, 2021).

Dugnad: A volunteer commitment to shared community work

Jante: The *Law of Jante*

NRK: Norwegian Broadcasting Corporation (Norway's National TV station)

RCN: The Research Council of Norway (Forskningsrådet)

TISK: Testing, Isolation, Infection Tracking (In Norwegian: Smittesporing), Quarantene (In Norwegian: Karantene)

WHO: The World Health Organization

Abstract

When the world was hit by the pandemic Covid-19, The Norwegian government opted for a national lockdown in March 2020. Press conferences were held, and central authorities spoke to the country with a focus on togetherness and a shared commitment through *dugnad*. Decisions were made amid an urgency and a scientific knowledge gap; there was not yet enough research and knowledge about the virus. Nations around the world chose different strategies. Communication forms, and use of restrictions and guidelines varied.

The importance of academic freedom and knowledge-based decisions may become clearer in times of emergencies. Through interviews with central actors from one region in Norway, this project provides insight into how the lockdown has made challenges and structures visible.

Mutual trust between the government and the civil society creates an atmosphere of collaboration in the country. Critical voices seemed few during the lockdown period. A shared notion of common effort made implementing governmental policies efficient. The cultural context and the social mechanisms during the lockdown period included aspects related to the Nordic Model, the welfare state, *dugnad*, and the *Law of Jante*. These are some of the aspects that affected academic freedom, production of knowledge and scientific consensus processes towards knowledge-based decisions.

Acknowledgments

I want to thank my two daughters Maya and Amanda first. You did not get to choose it but thank you for the time I took to do this instead of all the other things we could have been doing. Amanda was born in MASDEV's 2nd semester, and I handed in Bryman's *Social Research Methods* to the library on the way home from the hospital. Maya, you probably felt it the most (saying to your friends: "Don't worry, those voices in the room there is just mama who is transcribing"). I do believe though, that studying and stretching the limits of one's capacity, is not an entirely selfish thing. I want to pass something on to my kids, something about working towards a goal, of filling the mind with thoughts and research and useful, healthy inputs. And I am convinced that some of these things have already been implemented and understood. But thank you both, for being my motivation and inspiration.

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Declaration

I, Cecilie Dons Wallebek, declare that this master thesis is my original work, and it has only been submitted to the University of Agder for this specific Master's Programme.

Larvik 02.06.2022, Cecilie Dons Wallebek

Chapter 1 – Introduction

On September 24th, 2021, it was announced that Norway would reopen at 16:00 the following day. The Prime Minister of Norway, Erna Solberg, opened the press conference with the words: "Today it is 561 days since we introduced the strictest restrictions in peacetime, […] 561 days of *dugnad* to keep the pandemic under control" (Solberg, Regjeringen, 2021). She thanked Norwegians for their collective effort to follow restrictions and guidelines and attend to the shared workload to get through this tough period (Solberg, Regjeringen, 2021).

Covid-19 was declared a pandemic by the World Health Organization on March 11, 2020 (World Health Organization, 2020). This pandemic has shown the world how interconnected and interdependent we are (Budhwar and Cumming, 2020). Countries needed to act fast; societies realized that the virus, which was initially a faraway danger for many, came close to home very quickly. Local scenarios around the world varied in terms of infection and death rates, countries' resources, capacities for handling the burden of the hospitalized, and how governments made decisions with the available knowledge and led their people through the course of the pandemic. Measures to gain control of the infection, create support systems for societies in lockdown, and the eventual introduction, access to, and implementation of vaccination programmes differed.

The term *dugnad* was repeatedly used by Norwegian politicians throughout the lockdown period. The term is well known in Norway, defining a shared responsibility to participate for the greater good and to join an activity often connected to volunteer collaborations in communities. Examples of *dugnad* can include renovating a shared community building or volunteering to cook for the sports team (Lorentzen and Dugstad, 2011).

Universities, colleges, and other institutions of higher education and research are in a unique position as knowledge creators and sharers. Often, researchers are looked at as the actors who will provide scientific solutions to global challenges, furnishing needed knowledge, quality, and nonpartisan information to political decision-makers (Bogenschneider 2020).

New knowledge is continuously gained in institutions working on research and science. Results and publications are produced every day and are presented to the public through various means. The Research Council of Norway (RCN) states that a total overview of the number of published research articles annually can be drawn from various research databases, such as Web of Science and Scopus (Forskningsrådet, 2021). From sources such as these, RCN report that

in 2020, Norwegian researchers published about 22,800 scientific articles, equivalent to 0.50% of the total worldwide research output. The USA (15.7%) and China (18.3%) are the leading producers (Forskningsrådet, 2021).

Communicating research findings to relevant audiences and decision-makers is a field of its own. Research institutions such as universities are developing strategies for communicating these findings. Researchers are encouraged and expected to share what they know. In the case of Norway, governmental decision-makers have centralized advisory institutions, gathering knowledge to help and support their decisions (Ursin, Skjesol, and Tritter, 2020). Researchers themselves often aim to gain impact by communicating their results to actors on the ground and reaching policymakers so that their findings are included in future policies. Simultaneously, governmental decision-makers often look for additional means to receive updated information on which to base their decisions (Bogenschneider, 2020).

With the pandemic came a knowledge gap, and many actively worked to fill this gap. Intense research on the topic or adding relevance to previous topics could help understand the current situation and lead to solutions. However, this abundance of new research has led to the development of an 'infodemic' of Covid-19-related articles and pre-prints (Vist, 2020). Governmental leaders and society at large yearned for solutions and guidance. The academic fields of knowledge and their impacts on decisions will affect which strategies are chosen. In his book, *Kode rød*, Assistant Health Director of the Norwegian Directorate of Health (HD), Espen Rostrup Nakstad, describes the initial steps before Covid-19 was declared a pandemic. He also highlights the use of the knowledge gained and lessons that could be learned from the history of pandemics (Nakstad, 2021). The immediate challenges of Covid-19 increased the demand for research to be communicated strategically, widely, and clearly (Askwall, 2020). The Covid-19 pandemic required urgent decision-making processes around the world, even while the clear answers found through scientific knowledge were still being sought and developed.

1.1   Research problem, hypothesis, and research questions

The Norwegian government acted quickly in an unclear scenery, coming to conclusions from close partnerships with research institutions and obtaining updated research (Ursin, Skjesol, and Tritter, 2020, p. 1). This thesis will explore the decision-making processes in Norway during this time in connection to research production and communication of research.

Even if there has been a public display of certain disagreements, the decisions have overall been received with support from civil society and the public at large (Ursin, Skjesol, and Tritter, 2020). Research and communication of sciences have played a key role in this time of uncertainty, but there are more factors and actors involved in the challenge of the pandemic in Norwegian society. Some have raised their concern about "canceling cultures" in academia (Dørheim Ho-Yen, 2021).

It is central to this project to analyze the space for academic freedom and knowledge-based decision-making, and potential obstacles to this. A starting point for this research is based on the hypothesis that an important aspect to achieve collective effort and mobilize an entire society to follow national infection control guidelines, is to reach and maintain scientific consensus. A culture that promotes consensus may have affected the scientific progress that happens through disagreements and academic freedom, again leading decision-makers towards anchoring bias.

The research questions below provide the framework and focus needed to enlighten the hypothesis at hand. These will guide the work towards investigating the accuracy of the hypothesis, bringing forward a broader specter of insights, and the two research questions (RQ1 and RQ2) will lead the way in this project. The questions open for research on the hypothesis and set the relevant framework while searching for answers in literature and data.

RQ 1: Have the Covid-19 urgency revealed obstacles to academic freedom?

RQ 2: Were knowledge-based decisions possible in the Covid-19 scientific knowledge gap?

1.2 Study objectives

The scenario of a pandemic caused the demand for knowledge and solutions to explode. It revealed how research is understood and communicated could transform and affect entire societies. By interviewing actors to get insight into the processes that occurred. This is to understand how the transfer of useful knowledge to usable knowledge happened (Beckett et al 2018). This might help enlighten or bring forward other similar processes.

The political rhetoric used in Norway to combat an urgent problem is of interest. The context-specific foundations on which scientific knowledge, politics, and day-to-day activities of various professionals linked to science production, communication, and implementation can

shed light on opportunities for similar approaches on other urgent matters. Perhaps the Covid-19 lessons could contribute to success in mobilizing societies to join in the work to combat climate change, reduce poverty, or other societal struggles. Perhaps identifying enablers and disablers of academic freedom and knowledge-based decisions can lay the foundations to solve challenges that have been in focus for a long time, but where achievements have been delayed due to various factors. This can be such as lack of knowledge, political will, political strength, or support to remove them once and for all. The case study is based on one region with the Covid-19 pandemic as exemplary.

The three key objectives of the study have been to:

1. Undertake a large literature review on the topics. This was to ensure both broad and specific scientific insights into the various themes framing the project.
2. Gain insights from one region and the felt and experienced reality of people involved with knowledge production and decision-making. This was done through data collection in form of interviews.
3. Connect the scientific literature to the data collection to map out what may affect knowledge production and decision-making in Norway.

1.3   Study area

The geographical setting is the country Norway. Norway is a constitutional monarchy (Norden, retrieved 2022) with about 5,4 million inhabitants (FHI, 2021, September 13). The country is politically led by a parliament. Erna Solberg was the prime minister during the period in focus, and she represents the conservative right party (Norden, retrieved 2022). With a total area of 323,781 km2, and about 1,2 million people in the capital Oslo, with its surrounding areas (Norden, retrieved 2022), there are big differences between the regions in population density. Norway is a petroleum-producing country, which is one of the explanations for the country's wealth, accumulated in the Sovereign wealth fund; "the largest accumulation of capital ever in history" (Rapp Nilsen, 2009, p. 123). The country has grown into a welfare state, not experiencing warfare or major instabilities since the Second World War between 1940-1945 (UiO, retrieved 2021, November). With regards to financial stability, the most recent instability was during the Finance Crisis in 2008-2009, which hit Norway just as many other parts of the world (SNL, retrieved 2021).

The centralized level is included in this thesis, with interviewees from central national institutions. However, the thesis is regionally framed around a targeted area represented by four municipalities and one regional university. The detailed level provides insights into the Norwegian context and inputs to and from the overall national and global challenges, solutions, and discussions. The details from the literature review, the interviews, and analysis on the topic can potentially be transferred to analyze other relevant topics within the field of development, to be utilized in both a regional and a national level context.

The period of the study is a glimpse into the period when Norway was in lockdown due to Covid-19.

1.4 Thesis synopsis

Following the introduction, the literature review for this project is presented in Chapter 2. This review contains updated knowledge regarding the overarching themes of the thesis. As this case study is from one region in Norway, the starting point is to gain an understanding of the Norwegian setting and context-specific structures such as political and social, as well as learning about cultural ideals, the micro-and macro-narratives of "Norwegianness" and the level of trust in institutions and decision-makers. This will be followed by a review of articles bringing forward the course of events and presentations of how things were done, said, or decided when Covid-19 hit the country. Decision-making processes and structures that may affect these, in this case, will then be presented, followed by a section on consensus. These themes include aspects of scientific consensus and academic freedom.

Chapter 3 is the methodology overview. Here details from the entire process of creating this research project will be presented. Central in this chapter is all aspects with regards to how the data collection was undertaken. This includes the planning process, how the interviews were done, and the systematic approach of thematic analysis. The primary data for the thesis is 20 interviews with participants that were strategically chosen to gain insights into the research questions at hand. These 20 participants are researchers, university administrators, advisors from centralized institutions supporting the national government, as well as mayor as representatives from decision-makers at the local level. This methodology chapter will also include a description of how the literature search was done to achieve an outcomes-oriented review. This is to present relevant literature that further adds insights to the research questions.

In Chapter 4, the findings from the interviews will be shared. It will be divided into two separate narratives, the first heading with a focus on the topic of *dugnad*, the second heading with a focus on scientific consensus bringing forward enabling structures as well as challenges in knowledge production and implementation. The insights and stories told by the participants will be presented. They describe the lockdown from their various positions and points of view. Their insights provide perspectives from both the role of facilitating knowledge production, the perspective of a knowledge producer, presenting and implementing knowledge, as well as being decision-makers.

Chapter 5 will tie together the main findings from the data collections with central aspects brought forward in the literature review in a discussion. The structure of this analysis is set up from the two research questions, with sub-topics that highlight core themes under each of the two research questions. The first part will go into themes related to RQ1, and that may facilitate or make academic freedom challenging. Relevant inputs from the first part of the chapter are drawn into the second part, with additional discussions around decision-making processes related to RQ2. The two sections of this chapter are interconnected and will provide a broad discussion around the two research questions.

The conclusion in Chapter 6 will begin with an overview of the thesis contents. Here, the hypothesis will be followed up and conclusions to this will be presented. New theory findings on the research questions at hand will be presented. The project's potential limitations, as well as policy recommendations, and further research themes will be presented. The policy recommendations are based on both strengths and opportunities that it is crucial to maintain and nurture, as well as suggestions on how to combat potential challenges.

Chapter 2 – Literature review

In this literature review, central thematic areas will be presented through a chronological narration of the course of events during the lockdown due to Covid-19. The overarching themes that are reoccurring throughout the story are insights into Norwegian society, political rhetoric, consensus, academic freedom, research dissemination, and decision-making.

2.1   Covid-19 and the infection scenario in Norway

Norway had the first registered Covid-19 infected patient on January 26th, 2020, three days after Covid-19 testing started in the country. The first death was registered on March 12th (Ursin, Skjesol, and Tritter 2020). The response of the Norwegian government has by many been seen as exemplary (Ursin, Skjesol, and Tritter 2020). Emergency strategies seemed to be in place and were followed, but the foundation of science and knowledge to ensure the right decisions was not available here or anywhere else in the world (Tran et al 2020). The country first responded to the novel virus and the WHO declaration of a pandemic by ordering a lockdown and implementing guidelines to reduce the spread of the virus. No vaccine was yet available, and the virus spread globally at a fast pace, with more than 3 million cases of Covid-19 by April 2020, and more than 200 000 deaths by then (Tran et al 2020). Norway experienced a total of just below 200.000 cases of Corona, and 884 deaths from Covid-19 infection (FHI, retrieved 2021, October 19).

The next focus area was economic measures, both supporting businesses struggling due to the pandemic lockdown and receiving support drawn from the Norwegian Sovereign Wealth Fund. In addition, the focus was shifted toward the economic downturn in the oil industry, a major source of income for the country (Ursin, Skjesol, and Tritter 2020). Simultaneously, the public did to a high extent keep its trust in governmental restrictions. There were legal measures in place to be able to find those breaking certain guidelines, but few cases of this happening (Ursin, Skjesol, and Tritter, 2020). Public conferences from the ministers were systematically implemented on the national tv station NRK (Kjeldsen, 2021). The press conferences were held regularly from March 10th, first together with the Prime Minister and the Minister of Health, later also including other representatives, such as the Ministry of Justice and Public Security and the Ministry of Education (Ursin, Skjesol, and Tritter, 2020).

The Government has worked closely with the Norwegian National Institute of Public Health (NIPH) throughout this period, and both surveillance and the aspect of health communication

were shared on all levels from NIPH to the different municipalities, and NIPH representatives were also taking part in press conferences (Regjeringen, 2022).

Below is a description of the Covid-19 by WHO:

> Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illnesses. Anyone can get sick with COVID-19 and become seriously ill or die at any age. (WHO, 2022)

One central problem in dealing with the Covid-19 virus is that the virus may be asymptomatic in many individuals (Nakstad, 2021). This means that not everyone experiences any symptoms or falls ill. It is good for them but creates a challenge in controlling the spread of the disease. When people do not know that they are infected and that they may give the virus to others, the "TISK-system" once any in their connections have tested positive for Covid-19, is crucial to stop the virus from spreading (Nakstad 2021). TISK is an abbreviation for the Norwegian words for Testing, Isolation, Infection Tracking (Smittesporing) and Quarantine (Karantene), and it sums up a strategy used by the government in dealing with Covid-19 for a large part of the period during the pandemic (FHI, 2022, January 1)

Similar systems have been used across the globe, to a higher or lower extent than in Norway. One response example to look at for comparison is areas that have chosen strict restrictions and lockdown regulations versus more flexible and volunteer approaches. Olufadewa et al, wrote a review in 2021 on with a comparison of approaches and government responses between the US, China, and Italy, bringing forward solutions, warnings, and lessons to implement in government approaches to Covid-19 in Sub-Saharan Africa (Olufadewa et al, 2019). They highlight the effectiveness of the strict regulations in China versus the more flexible of the US and linked these different approaches to the variety in death rates and outbreak outcomes in the three countries. Their conclusion is that other countries should look to China when regarding effective systems for dealing with a pandemic. The combination of pre-pandemic strategies that were in place, government control, and strict laws and regulations. What they describe as China's success recipe, is not mere control, but also the built-up of the technological and economic framework needed. For example, in providing health care infrastructure and staff. In addition, they highlight research and knowledge production and systematic work on information to the public (Olufadewa et al, 2019).

Below is a chronological overview of the course of events from the lockdown of the country on March 12th, 2020, up to April 2021, when the data collection for this thesis was completed. There are many central events taking place up until the reopening of the country at the end of September, of the same year. The overview contains details from the government press releases. Although not exhaustive, the overview provides a broad picture of which consensus happened when, and how to see the events considering their present scenario. The knowledge gained in retrospect of the reopening will affect the way the events are understood now. It is copied from the government press release overview and adjusted and shortened for relevance to this topic. It is relevant to retrospect to view the strategy changes throughout the period, and after the data collection, especially regarding the Omicron (FHI, 2022) During the entire time of the data collection for this thesis, the main national strategy was to avoid a spread of the virus. A change in strategy was felt in January 2021, when the Omicron mutant spread in Norway, causing mostly mild symptoms, and simultaneously seeing a less restrictive policy on virus control (FHI, 2022).

Now it is apparent that regulations put in place long after the reopening of the country caused other types of protests, debates, or agreements. The governmental elections and new political representatives to guide the country creates different types of collaborations. Press conferences held on the outburst of omicron and new restrictions contained different kinds of rhetoric (Regjeringen, 2021).

Multiple aspects color our current understanding of the impact of Covid-19 in Norway. This overview though is a brief insight into a short period of history, and a narrative of one of many stretches in gaining control and combating a pandemic, in a national framework.

Figure number 1 Adjusted from the overview on Regjeringen (2022)

Timeline for news and press releases in English from Norwegian Ministries on the Coronavirus disease COVID-19.
Coronavirus: Norwegian authorities are closely monitoring the situation (27 February 2020)
Norwegian citizens may face new measures when entering other countries (11 March 2020)
The Government acts to mitigate the effects of the COVID-19 pandemic on the economy (13 March 2020)
Travel advise for the United States and France (13 March 2020)
Ministry of Foreign Affairs advises against non-essential travel to all countries (14 March 2020)
New regulations on quarantine etc. after traveling outside the Nordic region (14 March 2020)
Stricter border controls being introduced – Norwegian airports not closing (15 March 2020)
NOK 100 billion worth of guarantees and loans in crisis support for businesses (16 March 2020)

Government cooperating with airlines to assist Norwegians in traveling home (17 March 2020)
Foreign nationals with no symptoms of Coronavirus infection may leave Norway (17 March 2020)
Large compensation scheme for culture, voluntary sector, and sport (18 March 2020)
Norway mobilizes international support for vaccine development effort (18 March 2020)
Changes to the rules for temporary layoffs and unemployment benefits (20 March 2020)
Guarantee and loan programmes improving liquidity for Norwegian companies (20 March 2020)
Coronavirus measures to continue (24 March 2020)
Norway's health-related measures during the COVID-19 pandemic (27 March 2020)
New measures to curb the financial impacts of the Coronavirus outbreak (28 March 2020)
Economic measures in Norway in response to Covid-19(20 May 2020)
Changes in the travel advice from the Ministry of Foreign Affairs from 15 July (10 July 2020)
Norway extends global travel advice and makes changes for the Nordic region and Europe (12 August 2020)
Changes in the travel advice for Austria, Greece, Ireland, the UK, and certain regions in Sweden and Denmark (19 August 2020)
Changes in the travel advice for Germany and Liechtenstein (26 August 2020)
Norway to take on a leading role in the effort to beat the pandemic (07 September 2020)
Global travel advice from the Ministry of Foreign Affairs to be extended.
Changes in the travel advice for the Nordic countries and Europe (24 September 2020)
More family members may come to Norway (23 October 2020)
New national restrictions (26 October 2020)
Stay at home, and have as little social contact as possible (05 November 2020)
National measures that apply to everyone from 5th November (07 November 2020)
The Corona situation: Requirement to stay at quarantine hotel (07 November 2020)
Requirement of negative Covid-19 test to enter Norway (07 November 2020)
Continuation of controls at the internal borders (10 November 2020)
Infection prevention measures are necessary during the Christmas holidays (02 December 2020)
Introduction of a digital travel registration system (10 December 2020)
New statutory authority relating to requirements for a negative Covid-19 test result prior to entry into Norway and deportations in the event of violations of quarantine regulations (12 December 2020)
Changes to quarantine hotel regulations (14 December 2020)
Norway to ban direct flights from the United Kingdom (21 December 2020)
Government introduced registration requirement for all people entering Norway(21 December 2020)
New quarantine rules will contribute to more travellers being tested(29 December 2020)
Mandatory testing for travellers to Norway(31 December 2020)
Norway lifts ban on flights from United Kingdom from January 2nd 2021(01 January 2021)
Introduction of further national infection prevention measures(04 January 2021)
Global travel advice from the Ministry of Foreign Affairs to be extended(12 January 2021)
Stricter measures to reduce import infection(13 January 2021)

Continuation of most national measures but easing of measures for children and young people(18 January 2021)
Strict measures in ten municipalities following UK COVID-19 mutation outbreak(23 January 2021)
Stricter rules for testing and quarantine upon arrival to stop Coronavirus mutation(23 January 2021)
Norway introduces its strictest entry rules since March 2020(27 January 2021)
New financial measures to tackle the pandemic(29 January 2021)
Infection control measures are continued – but restrictions eased for children and young people(30 January 2021)
NOK 825 million for mandatory border testing(31 January 2021)
Future scenarios for the pandemic(01 February 2021)
How to spend your winter break in Norway(12 February 2021)
Deportation of foreigners who do not register prior to arrival or submit to testing at the border(15 February 2021)
Stricter rules upon arrival in Norway(19 February 2021)
National infection prevention measures: Easing of measures applicable to children, young people and students(19 February 2021)
The Government simplifies the scheme for regional Coronavirus measures(24 February 2021)
Solution for daily commuters from Sweden and Finland with a strict testing and control regime(26 February 2021)
Infections must fall(10 March 2021)
Income protection for locked out EEA citizens(10 March 2021)
Changes to the vaccine strategy(10 March 2021)
More people must go into hotel quarantine and entry restrictions to be extended(12 March 2021)
The government's recommendations for Easter(12 March 2021)
Strict regional measures to be introduced throughout Viken county municipality(16 March 2021)
Limited expansion of exemption scheme to include specialist personnel ...(22 March 2021)
The Government is implementing stricter national measures(24 March 2021)
These are the recommendations for the Easter holidays(24 March 2021)
The Government's plan for a gradual reopening: Out of the crisis together(10 April 2021)

2.1 Norway in a nutshell

In descriptions of Scandinavia (Denmark, Norway, and Sweden) or the Nordic countries (also including Finland and Iceland), terms such as equality and freedom are often used (Moss and Sandbakken, 2021). This may have been enabling development. One highlighted aspect is that the citizens enjoy both freedoms to choose, with a high focus on individuality as well as being part of a society with a shared sense of unanimity or consensus (Rothstein, 1998; Berggren and Trägårdh, 2015, cited in Capellen and Dahlberg, 2018). This again correlates to the notion of

collaboration, togetherness, and striving for equality and equity, ideals also presented as fundamental by several interviewees when describing their motivation to join the *dugnad* (Moss and Sandbakken, 2021). This is for example apparent in how public welfare is organized with a foundational value of inclusiveness, with basic rights for all citizens (Eklund, 2011: Witoszek and Midttun, 2019, cited in Simon and Mobekk, 2019).

In the case of Norway, the small population of the country plays a part in how consensus can flourish, attitudes and social aspects that are lifted from the village-level to the entire nation (Wilson and Hessen, 2014, cited in Simon and Mobekk, 2019). Elements of mutual expectations between government and inhabitants that are met and thus create trust (Eklund, 2011: Witoszek and Midttun, 2019, cited in Simon and Mobekk, 2019). The level of trust is also present in how the pandemic was met by the citizens, relying on the government to "fix it", and therefore following guidelines given without much opposition (Moss and Sandbakken, 2021).

Even if the country is wealthy today, Norway was once a society of peasants, relying on their neighbors and communities to help dig the soil or harvest the potatoes. Interdependency and mutual trust were thus created (Lorentzen and Dugstad, 2011), and the often shy and timid people from Norwegian villages (Lorentzen and Dugstad, 2011) were dependent on their communities. The peasants understood the importance of collaborating and mobilizing, "rolling up one's sleeves" and getting ready to solve a challenge, thus creating mutual interdependency and trust (Nilsen and Skarpenes, 2020). One aspect of underlying morality and value, and one mechanism creating the unity and mutual understanding in Norwegian societies is the activity and cultural phenomenon of *dugnad*. The term does not only describe the mentality of Norwegians but may probably also be part of the self-image and personal narrative of how to be a Norwegian (Moss and Sandbakken, 2021). It connects directly to the descriptions above on welfare systems, involving all citizens and being a meeting point that brings the inhabitants together (Nilsen and Skarpenes, 2020).

2.1.1 The ideals

Gender equality is a national goal in Norway, with systems that support family and work-life balance, for both men and women. Parental leave and rights are related to this, and daycare institutions provide the foundation for a gender-neutral workforce and equality between men and women (Aakvaag, Engelstad, and Holst, 2019). The UN Gender Development Index shows

the gender gaps in countries in the world and Norway is among the top countries on these indexes (Aakvaag, Engelstad, and Holst, 2019).

Equality and rights for the citizens are important aspects when and how a country faces an emergency. The idea of an egalitarian society gives the public rights and the government responsibilities, that they are expected to uphold (Aakvaag, Engelstad, and Holst, 2019).

The capitalist system is carried out with strong regulations from the government and the economic actors and collaboration between them (Aakvaag, Engelstad, and Holst, 2019). This has resulted in high trust and a collaborative, open climate to work in. A democratization of the economy, but also an egalitarian economy, with redistribution and participation as central aspects (Barth, Moene, & Willumsen, 2014, Sejersted, 1993, Thelen, 2014, cited in Aakvaag, Engelstad, and Holst, 2019).

The importance of the coordinating state and politics and the system of coordinating and collaborating institutions must be recognized when seeing how the country has developed into modern society (Aakvaag, Engelstad, and Holst, 2019). and understanding how it is organized today.

Rules and regulations are in place to ensure that individuals are supported in maintaining their rights, and in the case of academic freedom of speech, these rights are regulated too. One central task for universities is to maintain and promote these rights and this is stated in the Universities and University Colleges Act (NOU 2022: 2).

2.1.3 Public health, knowledge, and research communication

Although private services exist, and the number is increasing, both health and education in Norway are maintained by formal organizations and are central to the Norwegian Welfare System (Aakvaag, Engelstad, and Holst, 2019). The health- and education services offered by the state are considered to have high quality, and this is part of the state's protection, support, and investment in its citizens' wellbeing (Aakvaag, Engelstad, and Holst, 2019).

The Covid-19 pandemic demanded urgent responses from the governments, and for the governments to further communicate decisions and guidelines to the public. The amount of information flowing toward the public has been enormous, and various groups of the public have sought information in various channels, depending on age and pre-pandemic media habits (Finset et al, 2020). The importance of universities as "honest knowledge brokers"

(Bogenschneider, 2020, p. 631), as neutral sources for facts, is an important aspect to enhance science-driven political decision-making (Bogenschneider, 2020).

The importance of interdisciplinary scientific knowledge has been pointed out as a crucial aspect of decision-making, that connects the o interdisciplinary research communication, mentioned above. Single scientific fields of study are not enough to give the correct and sufficient inputs for informed decision-making by governments and might even result in wrong policies and solutions the society at large (Budhwar and Cumming, 2020). An analysis of the actors involved in research communication can benefit from other research on similar topics, for example by MacGregor and Cooper (2020), using co-production theory to shed light on processes of co-production in research communication. This again goes back to the interdisciplinary approach that is repeated in several articles as the key to reaching a multifaceted public, including the policymakers. Expectations to professional structures and cultures might limit the possibilities or forums for interdisciplinary co-production if not met (MacGregor and Cooper, 2020).

There are structural conditions in place to support research development. Various institutions have the task of producing knowledge. It can for example be privately run, or industry-led research institutions (Bennich-Björkman, 2007). The role of the universities as actors facilitating knowledge to be produced by researchers gives them a role beyond teaching and "production" of graduates (Bennich-Björkman, 2007). There has been a shift in the role of the universities as elitist and for the few, to be part of the "knowledge society", bringing education to all, with a larger number of students and accessible degrees (Bennich-Björkman, 2007). In Norway, these structures are to a large degree affected by what happens in the EU systems, just as Bennich-Björkman (2007) describes from the Swedish setting. Her article was written 14 years ago but is still relevant today. These processes have continued into today's reality. Although to "safeguard free intellectual inquiry" (Bennich-Björkman, 2007, p. 335) is still holding importance, research is being steered in terms of themes, framework, expectations, and demands for outcomes and impact (Bennich-Björkman, 2007). Externally driven processes, strategies, and plans will ultimately affect the researchers, and it might be affecting them as autonomous sources of knowledge. Their new roles in the accessible, mass universities include new tasks that do not relate directly to undertaking research or teaching. A lot of academic faculty staff experience more and more administrative tasks, because the system has become more bureaucratic. Research proposals and funding for research demands, the competition is fierce and in the findings of Bennich-Björkman (2007), the felt academic freedom directly correlates with the financial freedom (Bennich-Björkman, 2007).

There is a common consensus on the responsibility of a researcher. To research and share the knowledge. Expressions such as the *impact* and *outcome* of the research are widely used in Norway today (Kjeldsen, 2021).

Wilkinson and Weitkamp (2013) analyze how research communication and dissemination of research have changed and have done a study on a few environmental researchers and their various approaches to research communication. Although this study was done seven years ago, and, in the US, the findings are still relevant to this thesis topic, and provide insights into variations in attitudes, habits, and opportunities for researchers. They go through whether researchers report the impact caused by different media coverage, traditional versus social media, presentations, published articles in academic journals, and other dissemination via new technologies or linkages. Impacts could be such as being contacted by policymakers, then possibly affecting policy directly. Other impacts could be new connections with other researchers. They state that using other formats to disseminate the research and reach further to both political offices and the public at large, requires tailoring of the research and the design of the presentations (Wilkinson and Weitkamp, 2013). They also state that at the time this was written, few of the researchers used social media strategically to disseminate their research. An important finding is that through disseminations beyond publishing an academic article, media coverage or social media activities brought along the output of connections, and especially important with regards to connections to policymakers, that would most likely not be possible without other dissemination methods, such as the social media tools (Wilkinson and Weitkamp, 2013). At the same time, they found that these forums are those the researcher spend less time on and do not strategically use to promote their research, and the writers conclude that media training and simple communication tool knowledge could benefit the researchers, and the public at large since their research will be brought forward (Wilkinson and Weitkamp, 2013). The awareness of who the audience is and how to communicate to various groups is also an aspect to bring into research communication, and health communication towards the public at large (Ocobock and Lynn, 2020).

The finding by Wilkinson and Weitkamp (2013) that social media was underutilized as a dissemination method, and that other, more traditional methods of presentations and publication of academic articles were more used by much of the group is an insight that might have changed in the current setting of Covid-19. Considering the development that has occurred since their article was written in 2013, both dissemination methods, as well as demands for dissemination from research grant funders, such as the EU, have changed. This is for example obvious in a social media guide made by the European Commission last year, where it is stated

that "social media can be used for both communication and dissemination (both of which are mandatory for all Horizon 2020 projects)" (European Commission, 2020, p. 4).

Several challenges get visible in the wake of the first shock of the pandemic, and several specifically on research communication caused by the high pressure on research production. One is differences between universities, those being able to pay for access to secondary sources and the cases where researchers are being charged to publish and where the articles can be published before peer-reviews. So-called predatory journals (Budhwar and Cumming 2020). Another difference between universities is that of access to administrative professional support staff, for example, the size of communication departments and coproduction in disseminating research (Macgregor and Cooper, 2020).

Interdisciplinary approaches to research communication are highlighted by Finset et al (2020). They claim that this cannot be communicated by the health experts alone, but in a clear way where many actors are involved, such as communication professionals and educators. This is to ensure that the messages are given in the right way to the right group of people in the public and to clear the message in the jungle of research and media coverage. (Finset et al, 2020). However, most research publications were from academic fields related to public health and infection, and less to other fields, that will affect public health, for example, mental well-being (Tran et al, 2020).

Analyzing the process chains of research communication in a research institution, towards the mass media or decision-makers, requires an understanding of the organizational structures surrounding the researchers. A research institution as an organization will like other organizations be affected by factors beyond the actual research being done. This is such as organizational cultures, structures, and power relations within the institution (Boddy, 2008).

Conspiracy theories should be mentioned. Although Norway has not been among the countries that have been most affected by this, and the general population to some extent has agreed upon decisions made, conspiracy theories have been widespread during the pandemic period (Bierwiaczonek, 2020). These can result in situations where governments' guidelines and restrictions are being questioned by the public. A natural part of democracy but may be problematic when misunderstood beliefs take over for scientific consensus. They can then adhere to these beliefs, resulting in less acceptance of restrictions being made, which turn out may potentially increase the spread of the infection (Bierwiaczonek, 2020).

2.3 The Lockdown

The urge to act and the need to do something in an urgent situation is a test of the institutions in society (Janssen and van der Vort, 2020). A test of their abilities to gain knowledge about the unknown. A test of their abilities to sort out the irrelevant and find the relevant in an overload of information. A test to see if they can make difficult decisions that are proportionate and balanced, even though they may have negative effects on many people (Janssen and van der Vort, 2020). It is also a test of democracies, regarding the rights of the people, the freedom of speech, and how the governments come to their decisions and implement these.

Governments as decision-making bodies are referred to throughout this review. Here, 'government' is interpreted as the public actors that provide solutions and services for the public. This being local, regional, or national. This broad interpretation includes actors such as the local municipality, the county municipality, or the national ministry level. This is the general approach in the review, drawing the same broad outline of the understanding of 'government' to the data collection and analysis.

Governmental decision-making was taking place at an urgent pace across the globe. By the beginning of April 2020, 3,9 billion people (Bierwiaczonek, 2020) had been affected by various decisions made by their governments. This includes quarantines, travel restrictions, closed schools, and other measures that impacted their lives. At the same time, solutions to curb the virus varied and the research utilized to back up these decisions came from various sources. The governments had to utilize what was known, concluding on strategies and policies during uncertainty, lack of information, and clear answers (Janssen and van der Vort, 2020).

Agile and adaptive governance compared.

	Agile governance	Adaptive governance
Origins	A reaction to the waterfall mode of planning in software engineering. Later the concept of agility was extended to the organizational studies and governance	Founded in evolutionary theory, but integrated notions from other domains, such as organizational ecology, political science, ecology, systems theory, and complexity theory
Scope	Usually applied in development and innovation projects	Usually applied in public policy and governance
Lead motive	To satisfy a client	For survival
Main objective	Sensing events and responding quickly	Learning and maintaining fit
Types of problems addressed	Those involving changes in technology, market developments and customer satisfaction	Complex societal issues having many stakeholders with diverging interests and uncertainty about the actions to be taken
Key processes	Stepwise, incremental innovation, gaining quick feedback and using it to improve, working in multidisciplinary teams	Maintaining own fit with the environment, with both subject to change. Since adaptive governance is mainly descriptive, no prescriptive key processes are defined
Assumptions	• Focus on the own organization and internal response • Changes in market or technology require a fast response • Decision-making is pushed to lower levels to enable quick responses • A fixed governance structure (e.g., in squads, tribes, chapters or guilds) enables quick responses • Many small improvements and continuous evaluation • Emphasis on speed of change and quickly working towards solutions	• Takes larger systems into account, including a variety of players • Decision-making and responsibilities are scattered among various levels and organizations • No fixed collaborations; rather, organizations change to enable fit with environment • No fixed approach for adaptation • No clear solutions exist, which makes it hard to experiment
Criticisms	• Can be replace planning approaches, though these planning can be appropriate for certain situations. • Little predictability and difficulty in keeping projects on track • Externally focused instead of influencing changes • Governance is challenging as resources are often constant and prioritization of activities is needed	• Descriptive nature focused on explaining what is happening • No proven solutions or methods that can be readily used • Broad scope, which makes it hard to put in action • Multi-method, necessitating mindful use of methods and tools

Figure number 2 (Janssen and van der Vort, 2020, p. 3)

The overview on the previous page is included here as it is possible to connect the columns to a description of the Norwegian government's approaches to governance during the Covid-19 pandemic. Janssen and van der Vort (2020) describe how the levels of agility and adaptivity of governmental bodies become central to the ability to meet a pandemic such as Covid-19. This includes the flexibility that multiple pre-crisis strategies and plans can provide (Janssen and van der Vort, 2020).

Although the agile is more a description of a methodological, technical way to govern, and the adaptive is a more realistic description of real actions and governance (Janssen and van der Vort, 2020), elements from both can be part of describing the steps taken in the period of the pandemic in Norway.

During the initial stages, starting in February 2020 with lockdown and press conference communication (Kjeldsen, 2021), the Norwegian governance resembled how agile governance is presented. It was a need to do something, and to do it quickly. Although the level of decision-making was top-down, and not at low-level as is described in the first column above, it still had the same goal as that of an agile decision-making process; getting results fast. This was an emergency and shifting to a centralized decision-making level made it possible for the government to conclude matters rapidly and get the outcomes that were needed in the urgent setting (Hamblin, 1958, cited in Janssen and van der Vort, 2020). With this approach, centralizing decisions in such a way could be to regard the country of Norway was regarded as "one unit", and overarching rules and regulations affected all citizens and all spheres of society. Many countries around the world opt for similar centralized decision-making lines. And Norway was also among these, joining in what Gjerde (2021) calls an "authoritarian bandwagon", although a milder version than many other countries around the world (Christensen and Lægreid 2020, cited in Gjerde 2021).

In an adaptive approach, decision-making is scattered and decentralized, leaving it up to local authorities to draw the best-suited policies. After the first lockdown, more and more regions around Norway felt the need to add on specific rules and regulations that suited their areas specifically.

The central government still held press conferences up to the opening of the society in September 2021 (Moss and Sandbakken, 2021). The core information came centrally. Local regulations and guidelines were given after continuous collaborations between district leaders or municipality leaders and the centralized advisory institutions, providing health guidelines for all citizens nationally (Regjeringen, 2021). This is a typical example where adaptive

governance is done through decentralization of decision-making that still included coordination and support from the centralized institutions (Hong and Lee, 2018, cited in Janssen and van der Vort, 2020). This flexible governance, bringing in centralized decisions and combining them with decentralized policymaking, is typical of adaptive governance (Janssen and van der Vort, 2020). However, the approach will most likely entail some sort of conflict and friction between the different levels. For the tensions to benefit the outcomes, and to remain in trust and compliance with the civil society, the bureaucracy and institutions involved must be stable, their responsibilities must be clear, and structures for implementation must be in place (Janssen and van der Vort, 2020).

The Norwegian government's Corona Commission was set in 2020, to report on the government's handling of the crisis (NOU 2021: 6). This shows that there is a general understanding that solving the crisis may have had more challenges than what was presented to the public initially. It also shows an interest in analyzing opportunities for structural adjustment and policy changes. In the following section, more specifics on the rhetorical approach by the governmental decision-makers will be presented.

2.3.1   Rhetoric for collaboration

As Norway went into lockdown in March 2020, the term *dugnad* was used by government representatives repeatedly in their public speeches throughout the lockdown period (Kjeldsen, 2021). The regularity of the term came to a completion with the final speech by Solberg on the reopening. The term was included in the government rhetoric to a civil society that immediately understood what was implied and the group behavior of the citizens followed suit.

The rhetoric used by politicians must be understood in the context of the Norwegian society, in this case, a country that can be described as a model of trust, egalitarian attitudes, and reciprocity between citizens and society (Lorentzen and Dugstad, 2011). The idealistic value in the general population is to hold high moral standards, (Telle and de Lauri, 2020) which includes supporting one another and especially the weakest in the society. This is reflected in the speeches throughout the pandemic. The health minister during this period, Bent Høie, continuously reminded the citizens of how their actions would help or create danger for the weakest in the Norwegian society. Elderly, ill people, and other people had conditions that made them more affected by Covid-19 if they were to get infected (Gjerde, 2021).

There are volunteer collaborations like *dugnad* happening in societies all around the world. They again have their case-specific cultural aspects, and *dugnad* is about more than the mere activity of volunteer participation (Lorentzen and Dugstad, 2011).

Dugnad is a Norwegian word describing a group action that can take many forms. It has similarities to volunteering, as it does include unpaid work. However, the word does not translate directly to any English word. The actual work done through *dugnad* is often also followed by an event that is more enjoyable and social, such as a shared meal or snacks (Simon and Mobekk, 2019). "Dugnad stems from an Old Norse word (dugnaðr) which connotes 'help,' 'support' as well as 'virtue' or 'capacity.' The term is related to the Old Norse verb duga, which means to be of use or avail" (Telle and De Lauri, 2020, p.2). It is a phenomenon that needs to be viewed in the context and historical framework of Norway and understanding the concept should be done with an insight into how Norway has become a developed country with a comprehensive and inclusive welfare system (Simon and Mobekk, 2019). Although the Scandinavian countries have many similar aspects they share, such as similarities in language and culture, there are differences between the countries when going into the historical background and cultural roots of each country (Simon and Mobekk, 2019). These differences may ultimately affect how political rhetoric is undertaken and how research is both initiated and disseminated.

This in spite that the actions of doing *dugnad* were vastly different from any *dugnad* they had ever attended: Keeping distance rather than coming together, staying at home doing nothing rather than gathering and working side by side. When this became part of the government repertoire in the national press conferences (Moss and Sandbakken, 2021), it seemed the Norwegian population got that this adapted *dugnad* version was just as much *dugnad* as anything else, and went along with it (Nilsen and Skarpenes, 2020). Albeit the social distancing is something that is done as a community and the distancing itself ironically enough might have created a sense of togetherness (Telle and De Lauri, 2020). An enhanced "Norwegianness" could also have been sparked in the sense that we were all undertaking this *dugnad* activity together as a country, in which something all members of society could partake in for the common good, and to care for the weakest among us (Moss and Sandbakken, 2021). Kjeldsen (2021) points out the combination of the term *dugnad* together with the word "we". In the rhetoric used, the prime minister herself was part of this *dugnad*, part of the nation and an equal to the rest of us, as well as being in on the work that needed to be done; "This is not a PM telling her subjects what she has decided or what they are ordered to do, this is a peer

expressing what we know, who we are, and how we will work together on equal terms" (Kjeldsen, 2021, p. 107).

While in ordinary *dugnad* settings, the less valued behavior is when someone does not participate. It can be those who sneak into the apartment to watch TV rather than joining the neighborhood *dugnad* outside, such as cleaning the area. In Corona times, to go jogging in a public space or taking a trip to your cabin in another municipality might have been seen as an individualist act that would not benefit the public good (Nilsen and Skarpenes, 2020). Therefore, as a selfish act going against the government recommendations for collaboration.

The rhetorical strategy to reach the public does seem obvious in retrospect and has similarities to the rhetoric used to rebuild Norway after the Second World War or to get through the Financial Crisis in 2008. Familiar terms such as "*dugnadsånd*" (the spirit of *dugnad*), "spleiselag" (everyone chips in financially), and "roll up one's sleeves" (getting ready to undertake hard labor) were used and understood by most Norwegians across classes and societal roles. The assistant director at the Directorate of Health (HD) Nakstad how he introduced this to the Health Directorate during their weekly meetings during the initial stages of Covid-19, right before the lockdown

"I suggested to the group that we use the word "dugnad" to appeal to people's own efforts in combating infection. The directorates leader is positive to the suggestion and develops a message people will hear time and time again from the Norwegian government" (Nakstad, 2021, p. 107, translated from Norwegian).

Even though the language used does go further back in Norwegian political history than Nakstad's suggestion, it might have still been a choice of language difficult to grasp by new nationals and first-generation immigrants (Nilsen and Skarpenes, 2020). Although similar collective efforts exist across the globe, the moral ideal of values and mutual trust between citizens and governing institutions might provide a higher level of governmental power and control of citizens' actions, than what might have occurred elsewhere (Nilsen and Skarpenes, 2020). The tension that exists between those who follow the *dugnad* instructions and those who do not, may have appeared and become more visible when this rhetoric is used without further description. This could be immigrants to Norway understanding the recommendations as just that; recommendations, and not following suit before they are formal rules, as they may not grow up in the same type of system as the Nordic welfare society and may never have experienced the *dugnad* togetherness previously (Simon and Mobekk, 2019).

Dugnad is a phenomenon that is little studied. It can be traced back about 800 years in Norwegian history, it has become the "national word" of Norway and most people born in Norway do have a sense of understanding of what this term means (Simon and Mobekk, 2019). It is larger than the activity itself, "both a pragmatic mode of organization and a social value" (Myhre, 2020, p.1). *Dugnad* activities have changed over the years and turn out to be a flexible phenomenon that develops with the culture (Lorentzen and Dugstad, 2011). Traditionally, it has been related to increased social contact to solve a challenge. The internet and social media have had an effect also on *dugnad*, creating other platforms to undertake social engagement and solve challenges (Lorentzen and Dugstad, 2011). During Covid-19, the use of the term in ensuring that all citizens take part in less social contact, and fewer activities.

The traditional activities were coming together to solve an urgent challenge, something that needed to be addressed quickly. When seeing the history of the term and the connection to everyday life, often at small-scale farms, this could be such as harvesting before the autumn storms or finalizing repairs before the snow comes in winter (Lorentzen and Dugstad, 2011). There is an immediacy and urgency to *dugnad*, and therefore when using the term, there is a broader story told of what is expected of its participants than a basic volunteer activity.

The understood importance might vary from community to community, and with this also the level of social value or social control that it can entail. 'Loyalty' and 'stigma' are two aspects of how *dugnad* as a social construction can motivate participants or punish freeloaders (Telle and De Lauri, 2020). Joining *dugnad* activities may require a step away from self-interest in submitting and sacrificing precious time and effort to what benefits the group (Simon and Mobekk, 2019). All societies have culturally embedded expectations and values regarding what is seen as morally right or wrong. These go beyond the set rules and regulations (Nilsen and Skarpenes, 2020). Norway is no exception to this, and *dugnad* is an example where it is visible that there are certain ways to act or fail as a socially responsible citizen (Nilsen and Skarpenes, 2020).

To be included in the social groups and to meet the social expectations set by the individuals, may be of importance to people's general well-being. Cooperation and the collective effort through *dugnad* labor, unpaid in terms of money, is in Norway a pro-social behavior that may provide the social acceptance and connection between people that makes the activity attractive to be a part of (Nilsen and Skarpenes, 2020).

The phrase "in this together" was continuously used, also internationally. It contains some of the same aims of achieving togetherness and collaboration. However, it might lie the ground for a false sense of solidarity and equality when facing both the infection and the obstacles in dealing with infection control measures (Nolan, 2021). There are aspects of the rhetoric that does receive criticism and that go beyond the borders of Norway, as phrases using similar statements appear elsewhere too. It can be such as "we are all in this together" (Sandvik, 2020, p.304). This may be a well-meant attempt to highlight that this is a global issue and that the entire world must combat this challenge. However, as Sandvik (2020) states clearly, one cannot claim that the entire world faces this challenge in the same way. There are winners and losers all around the world and the pandemic does not affect everyone in the same way (Sandvik, 2020).

The rhetoric of common effort, *dugnad,* and volunteering to reach national goals together, does not suffice in the long term, and if there is no balance between personal input and outcome, and inequalities across societies in who must take the heaviest burden in this pandemic (Nolan, 2021). The end of the traditional *dugnad* activities will end up with a social event, sharing a meal or a drink (Lorentzen and Dugstad, 2011). Although symbolic, any *dugnad* or solidarity rewards are not to be expected, but the *dugnad* is ongoing. Several professions started to raise their voices and speak up, requiring another recompense than a virtual pat on the back or public applause, and seeing that much of the burden of handling the pandemic was left on their shoulders (Nolan, 2021).

Another aspect that came up in the autumn of 2020, was the seriousness of the matter and how that did not correlate to the use of the word *dugnad*. "This is no longer a dugnad, this is serious", said the leader of the city council in Oslo, Raymond Johansen, when referring to increased infection rates in the city (Ali et al, 2020).

2.3.2 Recommendations versus rules

With *dugnad a*s one central rhetorical strategy to reach for the collaborative idealists in the citizens, such social concepts will never be enough (Moss and Sandbakken, 2021). Not all members of a society will agree on the same values, or they might have alternating personal standpoints or life situations. The expectations for all citizens to understand and jump on board with the same meaning of the term, might not have worked, and for some, it is an unfamiliar format and concept (Nilsen and Skarpenes, 2020). Expectations from politicians in their use of

narratives of *dugnad* and that we were all in this together may therefore have been faulted (Moss and Sandbakken, 2021), as the word does not have the same connotations for everyone. Bringing the master narrative of *dugnad* to become an integral part of everyone's narrative and understanding, is unlikely to have not reached the same sense of connectedness and togetherness in all (Moss and Sandbakken, 2021).

The socially mediated consequences of not partaking in *dugnad* may not have been the same across the country, and this political vocabulary may have caused confusion in the civil society where *dugnad* was supposed to take place (Simon and Mobekk, 2019). At some point, the *dugnad* narrative was not enough, and many cases of stricter regulations, rules and even judiciary measures with punishment and fines had to be introduced where the advice was no longer enough to have everyone behaving in the preferred ways (Nilsen and Skarpenes, 2020). The diversity of the country in terms of geographical areas, population density, and infection rates also made the *dugnad* term and the general overarching national approach insufficient and perhaps both vague and illogical (Moss and Sandbakken, 2021). Why should a person in a small town with no known cases of Corona still attend a *dugnad* every day by staying at home and not going to work or sending the children to school, because larger cities had a high number of cases? The repertoire needed to extend beyond national regulations and the spirit of *dugnad* and be adjusted to fit the context (Moss and Sandbakken, 2021).

2.4   Knowledge-based decisions

Decision-making and the argumentation for the solutions that are being chosen can include reasoning and facts from scientific findings. In addition to how certain scientific facts are chosen over others, or whether the consensus or fact was concluded before the decision was made, other aspects infiltrate the decision-making processes. Social aspects, political standpoint, or financial matters may be part of the mix that influence the final decisions made (Dalyot and Baram-Tsabari, 2022).

Increased public interest in research comes with the relevance to the daily lives of everyone, and when realizing that leaders and decision-makers might pick and choose, ignore, or actively gather research before making their decisions (Boddy, 2008). This can cause either trust or distrust in governments, and clear explanations and openness are key for public support. This again brings along the relevance of research communication to create an understanding of why decisions are being made (Askwall, 2020).

To combat the pandemic, as well as not create panic, the importance of clear communication between health experts and governmental leaders cannot be underestimated (Finset et al, 2020). Previous experiences with infection that crossed borders and caused international concern, such as Sars, Ebola, and Swine Flu, did bring lessons that could, and perhaps have been, adjusted to this time around. One example is from the UK during the Swine Flu outbreak in 2009, and how the government there presented an unclear way forward for the public. Many reported that advice given by the government was unclear, leaving it up to everyone to self-diagnose and decide if they should stay home from school or work. People were told to behave as normal if they had flu-like symptoms. This was a cause for confusion and even anxiety in the public (Teasdale and Yardley, 2011).

The Covid-19 pandemic has revealed the global interconnection, and to a higher degree than previous globally reaching infections in modern times. Research findings have been communicated through massive media coverage, by state leaders and reached all levels of society. Updated knowledge has been yearned across the globe and a topic around dinner tables all over the world. Everyone was, and most of us are still, waiting to reach the other side of this pandemic, with the scientific answers to get us there. The global community waited for answers on how the spread occurs, where it all came from, how to best deal with the virus in the society, and finally, and most importantly for many, a vaccine. At end of 2020, the first vaccines were distributed (Riisnes, 2021).

The speed in which the virus spread has led to a parallel speed of research produced on the topic (Vist, 2020), with a pressure on researchers to relate their ongoing research to this topic, to be part of the wave of interest that is on this now, and on researchers to come up with solutions to this. With this comes issues of pre-prints and predatory journals that again bring us back to quality considerations (Fretheim et al, 2020). There has been an increase in published preprint articles (Jacobsen and Time, 2020), and a wave of knowledge, or "infodemic" (Askwall, 2020).

Covid-19 has also led to increased awareness of the internationalization of research. The importance of open science. Sharing knowledge and communicating the findings globally had to be prioritized to combat the challenge together. There have been multiple measures taken by various actors on open access solutions. To ensure that research and solutions are accessible to all nations has led the European Commission to develop a manifesto on this. (European Commission, 2022). Another example is United Nations Educational, Scientific and Cultural Organization (UNESCO), taking initiatives toward shared science, for example by organizing a global meeting with representatives from ministries of science from 122 countries, aiming to highlight the sharing of knowledge and reaching solutions together. On UNESCO's website, the topic of open access and shared science is described as central to solving this crisis, as well as a step to ensure quality research is being communicated. Here access is highlighted, as well as enhancing the importance of quality science that is verified (UNESCO, 2020, October). Following this, we find that new, perhaps unexpected actors, might play important roles in maneuvering and ensuring quality, one example is the emerging new roles of librarians in knowledge sharing (Chisita, 2020).

2.5   Reaching consensus?

Nobody had all the facts available that they needed before policy and regulations were made during Covid-19. The knowledge gap was one obvious obstacle to hinder correct decisions, other aspects play a part in these processes too.

Scientific consensus can be reached, altered, and then reached again. It does mean unanimity, but it does require a process of research, testing, and trying to get to the point where most of the research presents the same results and findings and one can call it scientific consensus. The fact that the earth is round is one such consensus, based on several investigations and findings (Sverdlilje, 2018).

Boddy (2008) describes aspects of decision-making that are relevant when grasping how scientific communication can influence governmental decisions during the Covid-19 pandemic. Heuristics is one aspect that may affect decision-making, and this is when decisions or points of view are taken as what Boddy defines as "short cuts" and oversimplification of facts to make decisions (Boddy, 2008). This might of course affect the relevance of the decisions made and may also cause negative results.

Bias is a central topic when discussing decisions that are related to political points of view and decisions made by politicians, as they do of course work in a political sphere filled with ideology and pre-case points of view (Chapman and Johnson, 1999). In cases of bias, decision-makers choose to focus on the research that strengthens the understanding or political point of view that one already has, even though other research exists and might very well lead to different solutions (Boddy, 2008).

There may be situations where decisions were taken, perhaps quickly and before all facts were available, and where new information reveals that these decisions should be altered. There are cases where the constructed solutions to a problem may be based on the wrong or uninformed starting points, but where the decision-makers are not going back or updating the decisions, but rather maintaining, and anchoring this bias (Chapman and Johnson, 1999).

Models are often used to back up decision-making. One weakness of models is that there are variables that cannot be visualized through these and in advance (Janssen and van der Vort, 2020). These can therefore limit the ability to see beyond the models and ignore insights that might come from experiences elsewhere or along the way (Janssen and van der Vort, 2020).

The researcher's ability and willingness to communicate research will play a part in which research is presented and is used. Not only does the support system for the researcher plays a part, but also the cultural context in which the researcher is public. In the next chapter, the cultural context where research communication in Norway exists will be presented, and this relates directly to the communication of research. The *Law of Jante* is one example where the sphere where the researcher can move and express oneself might be filled with limitations. Either self-imposed or imposed on the researcher by his or her surroundings. To stand out, raise the voice, express, and live the "academic freedom", might be root for jealousy, distrust, and exclusion (Cappelen and Dahlberg, 2018). Or the felt threat of these consequences might be enough to keep a researcher quiet and might hinder the academic freedom that is held so high in universities. In terms of *Jante*, it favors modesty, harmony, and to not stand out, it entails that the view of those who stand out or are successful "are resented, criticized and attacked – individuals are brought back down to size, after they become arrogant from performing better

than their peers" (Feather, 1989, cited in Cappelen and Dahlberg, 2018, p. 435). So, the role of a public researcher, following the expectations of not only doing research but also communicating and sharing this research (Bogenschneider, 2020), might be challenging if facing an atmosphere where being too visible is not encouraged.

There have been debates around the academic freedom for researchers in the aftermath of the 2020-experiences. One example is from Sweden, where a researcher received threats and negative feedback through social media to the extent that he left his work on Covid-19 (Torjusen, 2021). To understand this contextually, it is important to add that the Swedish strategy to meet the Covid-19 pandemic differs dramatically from the Norwegian strategy. Sweden kept the country open and has in total experienced a much larger number of deaths due to Covid-19 (Torjusen, 2021). The uncounted numbers that might have been affected negatively in other ways, for example, because of domestic violence (Sandvik, 2020), financial breakdown, or other matters, is not included in this picture. However, the topic of the researcher's field of expertise within childcare and how children were not much affected by the Coronavirus, is relevant also in a Norwegian setting. The fact that this sparks debate, and even anger, is of course related to the fact that this concerned many people in Swedish society. Sweden kept the schools open when lockdown occurred all around the world during the spring of 2020, and the children's safety was an obvious trigger point for many citizens. The researcher received so much negative feedback and blame for the overall Swedish strategy, that he openly stated that he stopped working on the topic and quit engaging in debates on the matter (Torjusen, 2021). This case is part of a tightened grip from the Swedish government to work toward protecting academic freedom and freedom of speech for researchers (Torjusen, 2021). The researcher received support from his employer, and the rector of Karolinska University actively went public and stated his worry about the lack of freedom of speech, as well as stating the importance of openness and debate around new knowledge in a scenario where the answers were not available: "In a situation with so many unknowns it is more important than ever that opinions are voiced and experts heard, even if their opinions run counter to current policies" (Ottosen, cited in Torjusen, 2021, p. 1).

Similar cases have occurred in Norway. In March 2020, the Norwegian researcher Gunhild Nyborg was invited to a debate program at the National TV station NRK. She presented her professional view of the pandemic as much more dangerous than what the public officials claimed at the time and compared it to the beginning of the Second World War. She states how this was an enormous personal and professional burden and has recently stated "I had to stand up against those who lead us in a time that it was important for us to stand together […]. For

me, this was an extreme situation» (Gunhild Alvik Nyborg, cited by Fanghol, 2021). At the time, there was little support for this researcher. NRK was criticized by the National Institute for Public Health (NIPH) to give this much speech time to Nyborg, and the TV channel went as far as to apologize for this (Fanghol, 2021). Only later, in a book published by the assistant director of the Health Directorate, he acknowledges that her statements were of scientific relevance (Fanghol, 2021).

Jante is a description and generalization of Nordic behavior patterns described in the book 'A Fugitive Crosses His Tracks', written by Axel Sandemose in 1936 (Cappelen and Dahlberg, 2018). It "can be seen as a cultural phenomenon – that is, as an aggregate cultural trait, as well as an individual disposition" (Cappelen and Dahlberg, 2018, p.434).

> **The Law of Jante**
> 1. *Do not think you are anything special*
> 2. *Do not think you are as good as others.*
> 3. *Do not think you are smarter than others.*
> 4. *Do not convince yourself that you are better than others.*
> 5. *Do not think you know more than others.*
> 6. *Do not think you are more important than others.*
> 7. *Do not think you are good at anything.*
> 8. *Do not laugh at others.*
> 9. *Do not think anyone cares about you.*
> 10. *Do not think you can teach others anything.*
>   (Cappelen and Dahlberg, 2018, p.420-421)

As a Danish-born immigrant to Norway, his list of ten "laws" is seen as a description of culture within communities in Nordic countries. Contextualized in a Danish-Norwegian atmosphere, almost 100 years ago, there are similar cultural phenomena described elsewhere, such as the "tall poppy syndrome" (Cappelen and Dahlberg, 2018). "It embodies the idea that one should never try to be *more*, tries to be *different*, or consider oneself more *valuable* than other people" (Cappelen and Dahlberg, 2018, p. 419). Often, these rules linked to how to behave, or not to behave, are seen with negative connotations. Chopping down those who rise above the crowd, those who come with new innovative solutions or share opinions loudly and without modesty. All these freedoms are aspects and symbols related to open democracy and freedom of speech. At the same time frowned upon with the *Jante* mindset (Cappelen and Dahlberg, 2018).

The positive sides of a culture with a *Jante*-imprint, brings along the sense of unity, an egalitarian society, equity, and the common good (Cappelen and Dahlberg, 2018). These are aspects bringing us back to the *dugnad* phenomenon.

The imprinted social control aspects of *dugnad* and the understood notion of morality, consciousness, and the common good, correlates with the aspects of *Jante*. The rules for behavior can serve as a control system on civil society, collectively led by the members themselves. Monitoring each other (Telle and de Lauri, 2020), or fear of being excluded socially due to unaccepted behavior, may motivate to join in on the *dugnad* or to not stand out and disagree publicly. Sanctions may not come in form of ordinary punishment when breaking a law but in the shape of exclusion or losing face or respect from others.

Cappelen and Dahlberg (2018) study how and the *Law of Jante* affects generalized trust in societies. Both on the individual and collective level. Their findings are based on questionnaires with around 3000 respondents. The results are clear on the fact that *Jante* does not create stronger trusting ties but does however create distrust and "a lack of tolerance towards other people and fear of their reactions constitute a poor framework for building interpersonal trust" (Cappelen and Dahlberg, 2018, p. 423). An enabling environment for civic activities, such as *dugnad*, require generalized trust to thrive in the communities (Cappelen and Dahlberg, 2018).

Mutual expectations between citizens and governments make it possible to achieve much without force, but it does not mean that it happens without any power can again be linked to and created partly because of aspects of social control. The term social control is often understood with negative connotations, in this case, the control mechanisms or reciprocity and expectations achieve and bring forward a level of trust (Wilson and Hessen, 2014, cited in Simon and Mobekk, 2019).

2.6 Concluding remarks on Literature Review

The Norwegian government acted in a way that in general got a response of trust and understanding from the country's citizens during the Covid-19 lockdown. Historically and structurally, mutual trust was core and fundamental to achieving results without the use of force.

In the literature findings, there is a description of a nation very much affected by its historical background and ideals such as equality, humbleness, and social ties, and interdependency. Even so, this is combined with a belief in the individual, in the freedom of speech, open knowledge society in a democracy where all members have equal rights.

Communicating research in a time of a pandemic brought along multifaceted aspects related to being in a situation of urgency. The global society waited, causing a rush and high pressure on research production. A keyword in such times is quality (Ocobock, 2020). Unclear answers combined with the infodemic wave of research production gave decision-makers a challenging starting point for urgent decision-making.

Political rhetoric must be strategical and fit to the receivers at hand. The term *dugnad* was central in Norway throughout the lockdown period and communication between policymakers in the implementation phase. The collectivism entailed in the term, bringing people together and ensuring their support towards a shared goal, should not be underestimated in its strength and effect. It connects the understanding of the description of the Nordic model and Norwegian setting with the experienced use of guidelines versus restrictions and rules during the lockdown. It can additionally be part of explaining why actors joined in and the potential risks these kinds of social structures may have to academic freedom and consensus-building.

Going into the processes of decision-making, the expectation of knowledge-based decisions in an urgent setting did present some challenges. Bringing forward decisions that suit a certain political point of view is one example of bias. Grabbing the first and "well-enough" knowledge that comes along and basing decisions on these is an example of heuristics. And continuing to hold on to former decisions without changing direction after new and improved knowledge is on the table, is an example of anchoring. All these terms represent challenges in decision-making processes. Another culturally embedded challenge to gain open discussion and ensure that scientific consensus is not reached prematurely is the *Law of Jante*, potentially creating a barrier between the ones who hold the knowledge and the sphere in which they can freely bring it forward and challenge the consensus.

Chapter 3 – Methodology

This is a qualitative study, with semi-structured interviews as the primary data. The literature review is based on literature searches done in the project's initial stages, as well as strategic searches to complement the themes that emerged through the interviews. The themes are the core structure of the analysis of the interviews.

3.1   Qualitative research design

In all research, the aim is to gain knowledge. The choice of research methods is dependent on the research questions and how to best achieve answers to these. In this case, qualitative research is chosen, collecting data material that provides rich and detailed insights into the participants' perspectives. This is a contrast to quantitative research design, which has a numeric approach, keeping the researcher at a distance from the participants, and with macro perspectives (Bryman, 2012). These designs are useful in many projects. Here, a qualitative research design is chosen as best suited to answer the research questions at hand. It fits this context-specific project and will provide the micro perspectives aimed for (Bryman, 2012).

The reasoning of the thesis is both deductive and inductive. Having the literature review and theory as a starting point to guide the data collection gives a deductive and general approach toward a specific understanding of the themes and creating a hypothesis based on this (Bryman, 2012). The thesis follows the process of deduction, collecting data and bringing in findings to look again at the hypothesis. However, through the interviews, new insights emerge, adding to the literature review knowledge and bringing specific points of view up to a more generalized discussion. Looking for a pattern and a system in the inputs is an inductive approach. The combination of the two may provide a more accurate representation of reality, but one cannot state that this fits other scenarios where we have similar actors. An inductive conclusion will in this case provide insights into this specific case study but may not be true on a larger scale or represent the narrative of this period by other actors in the same setting (Dybvig and Dybvig, 2004). Unlike the deductive approach, the conclusion for this project may not be a linear result that provide a clear answer and confirmation or rejection of the hypothesis as either true or false. As an inductive project, it will result in additional theory and present a more nuanced picture to the topic. This may provide for a broad insight and for further research on the emerging themes at a later stage.

3.2   Conducting fieldwork

The fieldwork consisted of 20 zoom interviews. To not have face-to-face was decided due to the period when the interviews took place and following the restrictions given by the University of Agder.

Below is a description of the fieldwork with time frame, the setup, and practical matters related to the interviews, as well as a description of the selection of interviewees.

3.2.1   Timelapse

The literature review started in the autumn of 2020 up to the final hand-in of the thesis.

From the moment the Norwegian Centre for Research Data (NSD) approval to undertake the study was ready, I started contacting potential interviewees and undertaking interviews. The interviews were done in the period from December 1st, 2020, to March 18th, 2021. Due to Covid-19 infection restrictions and the policy of the study programme at the time, all interviews were done through Zoom.

3.2.2   Interviews

The two research questions were central when setting up the interview guide. The main topic of the project was edited slightly as time went on, but the central hypothesis was not altered much. One goal of the fieldwork was to gain insights into how knowledge-based decision-making processes are undertaken, by whom, and how policy and guidelines are created. It was central to understand structures and roles to get this insight. Institutional ethnography is a goal for these interviews; interviewing people to hear their descriptions of their social and work-related experiences, their lives, their situations, and how they define the causes for this. This is to analyze the social organization they are a part of, and in this case, it is both the organization and the society at large that will be analyzed based on these interviews (Curwen, Haaland, and Wallevik, 2019).

Another goal was to gain insights to the structures and actors related to production and communication of the knowledge that represented the foundation of this very knowledge-based decision-making.

The primary data collected is 20 semi-structured one-on-one interviews with various actors related to the topic. The interviewees are categorized into four groups: researchers, administrative staff, central advisors to national decision-makers, and local decision-makers. All interviews were done in Norwegian. All researchers, administrative staff, and local decision-makers represent the same region, and the insights they provide may therefore mostly represent their region. The central advisors are working towards the national decision-making level and are mostly based in the area around the Norwegian capital, Oslo.

It became clear early that the introduction to the thesis and the first couple of questions often were enough to ensure a good flow in the conversation that provided answers to the remaining list in the interview guide. Follow-up questions to get deeper explanations to the points made by the interviewee was needed in all interviews, and in some cases to bring the topic back to the central focus of the thesis. Most interviewees spoke freely and had a lot to share. Logistical reasons made it necessary to have up to two interviews in one day, but the preferred method was to only conduct one per day.

3.2.3   Selection

A. Gender and age

12 of the interviewees were female, and 8 were male. It was an aim to have a gender-balanced group, but also with consideration to whom held the positions that were relevant to the interview. It was considered irrelevant for the theme to request the age of the participants. However, all participants were above 40 years old.

B. Category: Researchers

The researchers had either published on topics related to Covid-19, or they were listed as experts within academic fields related to it at the same university. The university keeps an alphabetical overview of the researchers where they list their field of knowledge within alphabetical keywords. Most of the researchers responded immediately.

C. Category: Administrative staff

The administrators are all employed at the same university as administrative staff working on tasks related to research support or research communication. There were representatives from the research department, library, and communication department.

D. Category: Advisors (to central decision-makers)

There are a few national institutions that play an important role as a for advisory institutions, handing knowledge to the ministries, that are presented for the decision-makers at the national level. These are executive agencies or directorates with competence within specific fields, all subject to ministries. In this case dealing with fields related to health, children, youth, and families. The interviewees from these institutions represent top management in their respective institutions.

E. Category: Mayors (decision-makers)

Who decides what measures to take and how to take them? In categorizing the groups, this group was initially referred to as decision-makers, because these are the top leaders, politically elected in their municipalities, and they represent and answer to their citizens. They are all mayors, of towns in the same region where the University administrative staff and researchers are located. The decision to only interview mayors was practical, as it was simple to find their contact information and they responded to e-mails. It was also relevant with regards to knowledge production in the immediate societies, they did represent the "decision-making" in the general communication to the public, in addition to the fact that several of the municipalities introduced measures beyond the national guidelines at one point or another in the time of the pandemic.

3.2.4 Practical aspects of undertaking interviews

The total number in the list of potential interviewees is 73 names or titles. These are people that have been found through searches online, according to their role or position, or through media articles or academic articles. Some of these in the list represent more than one person, for example, if an interviewee X recommended contacting a group of journalists, it is noted in the form "the journalists X gave me the e-mail addresses to". This was a dynamic list, where names were added continuously. Most of the interviews would end with a question about other people that might be relevant to the thesis. Out of the 73 listed, only 34 were contacted.

All potential interviewees were contacted through e-mail. Of these 34, some have been found through websites, either because of published academic articles or grey literature in other media, through organizational charts, or having been recommended by others who were interviewed. In a few cases, there was no available e-mail address for the person, but it was

possible to reach him/her through institutional e-mail addresses. Some e-mail addresses were given by previous interviewees.

Out of these 34, only 3 declined. The 14 that were not interviewed, but did not decline, did not take place for several reasons. Either the person agreed to be interviewed, some quite excitedly, and then they either never responded to the follow-up e-mails, or the date of the interview was continuously postponed.

Interview log:

01.12.2020	Researcher	28.01.2021	Administrator
15.12.2020	Administrator	08.02.2021	Advisor
17.12.2020	Advisor	08.02.2021	Mayor
18.12.2020	Administrator	18.02.2021	Researcher
08.01.2021	Researcher	18.02.2021	Administrator
14.01.2021	Researcher	23.02.2021	Researcher
14.01.2021	Mayor	12.03.2021	Administrator
21.01.2021	Mayor	12.03.2021	Advisor
22.01.2021	Administrator	12.03.2021	Mayor
28.01.2021	Researcher	18.03.2021	Advisor

These interviews were all planned and agreed upon through e-mail and undertaken using Zoom. All interviews were recorded using a digital recorder without internet access. The recordings were directly transferred to the University of Agder personal student online cloud storage and deleted on the recorder. Minor notes were also taken by handwriting during the interview, and a brief of the interview was written directly after the interview had taken place. This was also stored in the cloud, and all notes were using code letters with dates to specify who had been interviewed.

A spreadsheet with lists of possible interviewees, as well as code letters for each person, was stored separately from other files.

There were not many challenges in the planning and interviewing process. One obstacle that occurred was that several of the contacts did not respond or responded positively and then went quiet when agreeing on a date. Two other persons were confused when the detailed research questions were added to the invitation to be interviewed, misunderstanding them as

the interview questions. Following those incidences, the invitations were more simplified in the first e-mail, adding the information letter and letter of consent in the follow-up e-mail, together with the zoom invitation.

The thematic analysis is drawn from the primary data of the 20 interviews conducted in the period from December 1st, 2020, to March 18th, 2021. Every interview was transcribed. In total 210 pages with 80.300 words of transcriptions were the data gathered from the 730 minutes of recorded interviews. It was agreed with interviewees that the talk would last approximately 45 minutes, and the recorded interviews were in average 36,5 minutes.

Semi-structured interviews were used to adapt according to who is being interviewed was well suited in this study (Bryman 2012). The interview guides were followed for all interviewees, having a flexible approach to follow-up questions and adjustments to the role of the person. The interviewees spoke freely and questions from the guides were mostly answered through a natural conversational-style interview.

3.2.5   Ethical considerations

The Norwegian National Research Ethics Committee lists four main principles for research. The first is respect (Forskningsetikk, retrieved 2021), and in this context, all research that is done and approach to the various interviewees, is done concerning their professional work. The aim of the interviews is never to find scapegoats or devalue actors. The approach is based on positivity, to analyze how things work, and for it to be a useful thesis to read for people in similar professional positions as the interviewees to understand and develop their field and networks.

The second point is of good consequences (Forskningsetikk, retrieved 2021). This is central to the thesis, and not only on the topic of the thesis itself, interviewing professional staff might in the worst case have negative consequences for the careers of the interviewees. This is a scenario that must be avoided, and anonymity is central here.

Point number three is fairness (Forskningsetikk, retrieved 2021). Pressure on interviewees could potentially happen even if aiming to avoid it, so sensitivity to such issues is required.

Integrity is the final point (Forskningsetikk, retrieved 2021). It is crucial to have a precise, transparent, and honest way of dealing with the project and the interviewees (Forskningsetikk, retrieved 2021).

In addition to these introductory principles, there are fourteen points listed as guidelines, all are of course relevant for this thesis. Some of these are directly linked to the research topic at hand. This is such as global, social, and institutional responsibility, availability of results, quality, and quest for truth (Forskningsetikk, retrieved 2021). Research communication in the light of the Covid-19 pandemic is a quest for truth and gaining knowledge about actors and responsibilities and spread of knowledge through research results. With regards to the design of the thesis, it is confidentiality and impartiality that stands out as challenges for this project. The National Committee for Research Ethics in the Social Sciences and the Humanities describes research ethics as not only set laws and permissions but also norms and ethical values that supplement these (Forskningsetikk, retrieved 2021).

3.2.6   Methodology for interview analysis

NVivo was the initial program used to analyze the interviews, the primary data. This program was chosen to start the thematic analysis since the thought was that this large amount of primary data required a tool such as NVivo to organize the data material and go into the analysis of it (O'Neill et al, 2018).

The thematic framework approach (Bryman, 2012) is one way to structure the contents of these interviews. Once the main themes had been highlighted, the need for a more hands-on approach to the data material became apparent. To move from the screen to printed paper felt necessary. Both to keep focus and for personal preference of working with pen and paper. Therefore, all transcribed interviews were printed and sorted, using notes to highlight themes further, and make comments and lists of keywords for each interview. From there, it was possible to go back again to screen, making overviews and direct analyses utilizing both NVivo work and hard copy paperwork.

I am a native Norwegian speaker, fully fluent in the language. All transcriptions were done in Norwegian, and quotes that were used from the interviews were translated from Norwegian to English.

3.3 Methodology for Literature review

A continuous literature search for the review was undertaken throughout the entire project period.

3.3.1 Review type

There are multiple types of literature reviews (Sutton et al, 2019). Cooper's taxonomy of literature review serves as a support to gain an understanding of what type of review is used in this thesis (Cooper 1988, cited in Randolph, 2009). Below is a form based on this, customized to the review of this specific thesis:

Characteristic	Categories
Focus	Research outcomes
Goal	Identification of central issues
Perspective	Espousal of position
Coverage	Exhaustive review with selective citation
Organization	Conceptual
Audience	Supervisor and reviewers of the thesis

Figure number 3: Cooper's taxonomy. 1. ((Cooper 1988, cited in Randolph, 2009)

The aims of the review are both to, through a narrative description, present the up-to-date research on the topics at hand. It is also to highlight the relevance of the thesis. The information presented in the review and the thesis at large, especially through interviews and analysis of these, is a contribution to filling a knowledge gap in this field. This explains how the focus of the review fits well within the category of outcomes-oriented reviews (Randolph, 2009).

3.3.2 Literature search and search log

Literature searches for the basic knowledge of research on the fields of interest were initially done in Oria. This search engine is connected to the BIBSYS Library System, used by many higher education institutions in Norway. It gives access to various documents and media that the library has (UNIT, retrieved 2021). The systematic approach that was then followed was to have a regular search set-up in Scopus and Sciencedirect. These academic databases give more results than ORIA and more within each academic field.

The words used in the searches at the early stage of thesis writing were:

1. Corona
2. Korona
3. Covid-19
4. Research communication
5. Research communication for decision-making
6. Research Dissemination

The searches were refined to peer-reviewed articles and books. On the search words 1-3, it was refined to show only results from 2020.

The vast amount of research related to Covid-19 required an awareness of topics to exclude, always an important aspect of literature searches, but an especially obvious one in this case (Pautasso, 2013). This initial approach to a literature search with the idea of reaching an exhaustive review (Cooper 1988, cited in Randolph, 2009) was later left aside. It served its purpose of gaining knowledge and a full perspective on the topic at hand. During the stages of analyzing the interviews, themes emerged that were not covered by the searches done in the first phases of the project. It was a useful starting point and relevant to get updated search results regularly from Scopus and ScienceDirect; the literature searches were then shifted to the emerging themes through the interview analysis. The search words were based on the topic of the thesis broken into thematic words. The use of reference lists in the articles found while searching for the topics became more central in the literature work than mere overarching searches.

Chapter 4 - Findings

The interviewees' quotes and the description of their inputs are referred to using the codes listed below. In this form, a brief introduction to each participant is given, to give a broader understanding of the narrating and descriptions that will follow. All participants are given full anonymity. Details concerning gender, age, location, or nationality are therefore kept out of these descriptions. Numbers are updated until April 25th, 2022.

Administrator 1	The person works in central research administration at a university.
Administrator 2	The person works in central research administration at a university.
Administrator 3	The person works in university library administration.
Administrator 4	The person works in the communication department at a university.
Administrator 5	The person works in central research administration at a university.
Administrator 6	The person works in the communication department at a university.
Researcher 1	The researcher has deep knowledge within the field of infections.
Researcher 2	The researcher deals with digitalization within the field of health.
Researcher 3	The researcher is an expert on topics within mental health and child welfare.
Researcher 4	The researcher has deep knowledge of historical aspects of diseases and the history of health and medicine.
Researcher 5	The researcher has deep knowledge of geriatrics and nurse education.
Researcher 6	The researcher is an expert on topics within health promotion and child welfare.
Mayor 1	Norwegian municipalities can generally be categorized in small, medium, and large municipalities, based on the number of inhabitants (Langørgen and Aaberger, 2008). This mayor is based in a large municipality. The municipality has had around 9000 registered Corona cases up to hand-in of this thesis. Deaths caused by Covid-19 are no longer reported, and therefore not included in this overview (FHI, retrieved 2022, April 25).
Mayor 2	This mayor is based in a large municipality. The municipality has had below 14.000 Covid-19 infected registered.
Mayor 3	This mayor is based in a large municipality. The municipality has had around 14.000 Covid-19 infected registered.
Mayor 4	This mayor is based in a small municipality. The municipality has had less than 400 cases of Covid-19, and the only municipality out of the four with no deaths caused by Covid-19 infection registered up to the time when deaths were no longer registered at the municipal level (FHI, retrieved 2022, April 25).
Advisor 1	The person works in an institute collaborating closely with the directorates on advisory support to the national government.
Advisor 2	This person is central in a directorate providing advisory support to the national government. The directorate is also responsible for the implementation of political decisions made within the work area of the directorate.
Advisor 3	This person is central in a directorate providing advisory support to the national government. The directorate is also responsible for the implementation of political decisions made within the work area of the directorate.

Advisor 4	This person is central in a directorate providing advisory support to the national government. The directorate is also responsible for the implementation of political decisions made within the work area of the directorate.

The themes have emerged from the interviews. The interview guide was followed during all interviews, adding follow-up questions where suitable. As early on as the second interview, there were reoccurring themes that came up. Various forms of research communication, academic freedom, and power are examples of topics that were mentioned by several people, and repetition of this kind is central when searching for the themes in the data material (Ryan and Bernard, 2013, cited in Bryman, 2012). Potential obstacles to a fully felt academic freedom were mentioned, as well as unclear paths towards a scientific consensus on the topic of Covid-19.

Another aspect is how the four categories of interviewees, share how they describe their work and the situation from the lockdown in March 2020. These differences and similarities among the groups are interesting when searching for themes (Ryan and Bernard, 2013, cited in Bryman, 2012). Even the tone of voice is similar between the interviewees from the groups. The administrative university staff does for example cite strategies and have a more operational and problem-solving mindset, facing the pandemic.

The initial title of the project was presented to the interviewees as part of the information letter and in the introduction before each interview: "Research communication for decision-making". This made several of the interviewees think about the term "research communication" and had one or multiple ideas about what this term means, and how it could have a variety of meanings and be done in different ways.

The topic was in one way or another central for all interviewees. For researchers, it was relevant to their profession, as an integral part and expectation of their role as researchers. For people in advisory roles to the national government, they related it to how they presented research summaries with conclusions that are delivered directly to the ministries and from there to the government. These reports also include advice on what to decide. Sometimes it is followed by the national government, sometimes decisional advice from other ministries' reports is followed. They also had the role of communicating to the public, and research communication towards all groups in society was central to their daily work.

Administrative university staff had various approaches to the topic, depending on their professional roles. If in the research department it was a focus on grants, strategies, and good

research project applications. It was not directly linked to undertaking research communication or receiving it. From the communication department, on the other hand, this was one of the core activities. Media contact, articles in newspapers, and research websites were some of the communication channels mentioned. This was a natural part of their focus and aim and their role as support staff to researchers. The library had another perspective on the matter, dealing with academic articles, registering in databases for research, other research information systems, or help that they offered to the researchers in their daily work. The local decision-makers, the mayors, all stated how the research and central advice was impacting their decisions, as they all followed the guidelines coming from the central authorities during the period of the pandemic, and that they were in regular contact with the advisory institutions. Their role as mayors is to present decisions to the public, and in that way, they also lean on research in this communication and aim to reach various groups of the public in different ways.

The interviewees represent a small selection in a larger network of actors. The interviews offered a unique insight into a short period in their professional life and their experiences during the lockdown. This will ultimately be influenced by their previous experiences with their organization, their private lives, and experience with the lockdown, as well as other aspects that cannot be fully described in this limited narration.

4.1   Joining the dugnad

The political message to ensure common ground and collaboration through the infection control measures has been received by all the participants interviewed for this thesis. In the following section, however, how they perceived and understood their role in joining the *dugnad*, will be central.

4.1.1   The universities in the lockdown

The university administrative staff describe a period with less commuting, having a home office, and online meetings. The overall changes in life were with regards to not being able to meet other people face to face. They describe that time seemed to slow down, and they mention that it did affect the efficiency at work to some extent. Even though commuting was out of the picture, things still just went on at a slower pace and time went fast at the same time. Several of these participants were used to having online meetings before the pandemic hit the country.

This did not alter their professional life that much, although they were missing coworkers and the regular chat by the coffee machine. Some of the structures had to be adjusted to new long-distance activities. Larger seminars had to be held online. This required considerations such as the time difference between presenters from different countries, struggling with the arrangement of technical equipment and having to utilize new tools, such as Zoom for online meetings (Administrator 1).

They did describe that the scenario of being in lockdown made them a bit more exhausted, and one person compared it to moving forward in syrup, and not being entirely sure about the direction in which to move. There were extra efforts taken to communicate infection measures to the students and staff by the communication department and to bring forward relevant research about the topic from their institution. The gap between hands on and more strategical work was a balance point for many of the administrative staff. Not unlike the daily work before the pandemic, but now more with Covid-19 as a focal point.

The library staff member experienced more databases being opened, a shift that happened during the pandemic, in line with EU-regulations on open science and bringing knowledge to the societies (Administrator 3).

All administrative staff report of loyalty to their workplace. An attitude of a shared effort, that they will fix this, they will play their part. *Dugnad* is mentioned by all of them. The leadership must show appreciation and show real interest in looking into the workload and self-initiated *dugnad* effort done by the administration. A certain sense of feeling ignored comes up from a couple of the participants. That the leaders did not take the time to check out how things were on the ground, to see the struggles, and recognize the strength and loyalty it takes to maintain the structures of a university during such a challenging period.

This is a call for attention to the tasks done, and for the leadership to not dismiss hard work as *dugnad* but appreciate and see the staff members. The citizens' effort can only be stretched so far under the label *dugnad*, and at some point, it must be recognized and lifted out of the expectations to volunteer for the common good, but to get actual rewards for the extra commitment and labor required (Administrator 1).

4.1.2 Sifting, producing, and presenting knowledge

The allocation of tasks to governmental advisory institutions and directorates are usually given by the central government at the end of each calendar year, presenting the upcoming tasks and expected results for the coming year (Advisor 4). The advisor describes that plans in December 2019 did not include tasks related to handling a global pandemic. This shows how unexpected Covid-19 was at the end of 2019, although cases were already reported in China at this stage (World Health Organization, retrieved 2022, January). This made for a rearrangement and redistribution of tasks when it was realized that the pandemic would affect the daily work of the directorates in Norway, and the letter of allocations had to be altered (Advisor 4).

The central advisors who have participated in interviews for this project were all in leading positions in their respective institutions when the pandemic hit Norway. It led to some of them getting new responsibilities on the matter of Covid-19. These institutions are knowledge institutes and directorates providing updated knowledge about their fields, in this case within the topics of health, children, youth, and families. Those working on health matters describe a shift in focus of the entire institutions to solve the crisis. Other tasks were laid aside or downgraded. In two separate cases, the advisors describes that they did not have a Covid-19 crisis team, both institutions reorganized their efforts toward the challenge of Covid-19 and left other matters for later.

The advisors report of long work hours and pressure to perform. They were the ones who had to sift and organize knowledge and bring the facts to the table for the government officials to make their decisions, a responsibility none of them took lightly. A high level of motivation might have been further increased by the sense of togetherness and responsibility strengthened by the rhetoric of *dugnad*. It was, however, not a choice for these interviewees, this was their job, and the expectation was that they contribute.

The description of what these institutions do depends on the field of expertise that they hold and what focus area they represent. For those working on health matters, the initial approach was as being the main center for knowledge collection, knowledge summaries, own research, ordered research, and presentation of these facts to the decision-makers (Advisor 1). The role of public communication of health information was also among the tasks they dealt with and presenting vast amounts of information in a useable way to both the everyday citizen, local decision-makers, the industries, and the public at large, were part of their duties (Advisor 3). TISK (Testing, isolation, infection tracking, quarantine) strategies and communication on

how this was to be done were central (Advisor 3). For the knowledge providers and policy implementors working on matters related to children, youth, and families, their work kept on as before during the initial stages of the pandemic but strengthened with regards to delivering premises for policy (Advisor 2). It was, however, a turn into a more Covid-19 focus as a direct result of the consequences of lockdown and this effect on the availability of their services in society, for example, experiencing that families with high levels of conflicts were affected by the lockdown. This was partly because the work of the regional and local municipalities toward these vulnerable groups was limited and restrained due to infection control measures (Advisor 3).

4.1.3   Local versus central decision-making

The four mayors that were interviewed all describe a general trust in the central governmental institutions. Some had professional backgrounds that enabled them to be more prepared for such a course of events and emergency than others. Three out of four represented municipalities that had multiple cases and challenges throughout the period. The fourth municipality had a smaller population and were based less central, and the infection rate was very low, with no deaths from Covid-19.

To begin with the smallest municipality, the initial stages of lockdown and following national guidelines was early on felt unfair. There was no infection in the municipality, why follow national restrictions and close everything? (Mayor 4) An initial move described by Mayor 4, was to introduce strict regulations for people from outside the municipality travelling to visit. This was in Norway referred to as the "cabin restrictions". They simply did not want outsiders to bring Covid-19 into their society, and these outsiders were usually visitors who had cabins in the area. Another aspect of this regulation was access to medical treatment, having to travel to another municipality about 2-3 hours away to access a public hospital that could offer all the necessary equipment and intensive care units. The mayor does describe a flexible system, however, where industry and business were granted access to arrive in the municipality, to keep the "wheels turning" (Mayor 4).

Even though the municipalities were given financial support from the central government to pay for the extra costs related to Covid-19, some municipalities had low budgets to begin with. In the case of the smallest municipality in this case study, they closed public run meeting points due to Corona, but in some cases, they kept them closed even though the

infection rate was not high since the budget was already too low to keep them open. In the interview, the mayor describe that they were open about this with the citizens, that the publicly run cultural or sports institutions, for example, were closed in this period, simply because of economic issues in general.

The other three municipalities had more infection, and more movement of people and introduced their own regulations and restrictions on top of the ones given by the central government. One example is restrictions with regards to the use of face masks, that especially Mayor 1 highlights as an important local decision.

All mayors state that they did have emergency plans although it does vary how relevant these plans were for this specific challenge. Bringing out information to the public was however a central point in the emergency plans, and a central role of a mayor in a municipality (Mayor 1).

All municipalities operated with an emergency board, even if the title of the board, as well as the participants and board leaders, varied a bit (Mayor 2). It was very clear, however, that even if the mayor is the elected leader of the municipality, it does not mean that he or she made all the choices or had political agendas that trumped suggestions from the municipal doctor or the administrative suggestions from the county governors (Mayor 4). They describe a collaborative atmosphere during the lockdown, where the local level was attentive to directions coming from the central government, and the political opposition was supportive of decisions that were made (Mayor 2). Not only was this the experience they describe because they were in a time of crisis, but it also had to do with the felt lack of knowledge and the need to lean on the expertise to ensure that the decisions were safe (Mayor 2). They describe less pressure from the public when decisions were made on a central level and express a trust in the central government that all financial expenses related to the Covid-19 effort would be covered (Mayor 3).

4.1.4   Contributing with insights

Early in the lockdown, several of the researchers found what they described as knowledge gaps, areas that they saw that it was urgent to search for answers to. Both to contribute to better solutions for the public affected by these gaps, but also to ensure that decision-makers had more information to do informed decisions if or when the time would come for further restrictions.

This could for example be to learn and know more about consequences before facing new rounds of lockdown or increased infection rates in the society. Researchers describe that they felt they needed to act and to bring forward their findings to support and strengthen the knowledge for decision-making, as well as for decision-implementing in the respective fields. This was seen as a duty or obligation a researcher has to the society, he or she is part of.

> It was urgent to get it out. […] Obviously, this will be interesting three years from now, but if we can learn something now, and perhaps in critical fields such as child welfare. They have started on a new lockdown now, what have they learned from the previous lockdown that can make the situation easier this time around.
> (Researcher 6)

The researchers mention ongoing projects, where the methodological approach does serve an additional purpose as research communication. One example is focus group interviews, with participants working "on the ground" in the fields that they research. In the focus groups, participants were invited to share their experiences from hands-on-situations in their work during the pandemic. The focus groups then become a meeting point for shared knowledge and experiences, so that the researchers that initiate the project, are through these focus groups creating a platform and a meeting point. The participants share, discuss, learn, and bring back new knowledge to their field. This is an example where research is not finalized, published, or peer-reviewed, but it still has an impact on society and potentially on policy implementation.

In one example given, a researcher describes professionals dealing with daily challenges that were brand new to them in a situation whereby the governmental restrictions on infection control would be hard to follow while simultaneously providing healthcare and the professional closeness to others required. To give proper care would mean to have to breach these regulations. This could be situations with child welfare, mental health, scenarios where the one-, or even two-meter distance would be impossible to follow. In the initial stages of the pandemic, these day-to-day situations would cause stress and anxiety among the staff. As the researcher put it; "Let us say you were an emergency nurse, you cannot go back to the book of procedures when someone is about to bleed out. It is there and then the situation must be handled" (Researcher 6).

A meeting point as participating individuals in a research project, using focus groups, could for these professionals be a source of relief and support, and bring along new ideas and solutions. The researchers would in other words facilitate meeting points where solutions could be directly transferred into other areas and situations with immediate results.

Ongoing research can serve as research communication in other ways too. As described by several of the interviewees, the questions raised when they were being interviewed for this project made them think about things that had not been on their minds before. How things were, or could be, interconnected. This was brought forward by one interviewee too on how the researcher has the approach that it is relevant to be working on topics close to the practice field, with people facing concrete decisions every day. As mentioned above, the impact of the participants in a project is a way of communicating new solutions directly from the researcher to the field. Without implementing an agenda, but by simply asking questions and creating reflection around a topic.

> I like to work down in the empirical world and affecting. If you can affect one therapist to do something different, with a reflection through an interview for example, then you have contributed to a change that may be good for someone.
> (Researcher 2)

Being a researcher at a university, with student contact, is also highlighted as a contribution to bringing along insights from ongoing research in the lectures with these students. They again then bring this information out into their practice placements, which directly links to patients or user groups in society (Researcher 6).

Another role of the researcher is to present the findings and be active in sharing the information with the public. This is a part of the expected tasks researchers have, but they all describe how they or co-workers experience that this may be an area where some are hesitant to fully step into the public eye. However, they do describe how they find ways to share and contribute what they know using various media sources (Researcher 5).

4.2   Consensus or challenges?

All interviews started with an open dialogue where the participants were invited to tell their own stories of how Covid-19 has affected their professional lives. They were asked to describe the period and if there had been any changes or challenges to their daily work. Categorizing their answers and descriptions fits well with the expected agencies of the roles that they are holding. One may assume in advance that the researchers have an engagement on the matter that was higher than the administrative staff at a university, for example. Another expectation before the interviews was that the mayors perhaps would be more critical of national regulations

than the central advisors to the government. This given that the mayors were often given instructions from the central government and in this simply told what to do, while the central advisors were the ones providing the national guidance and instructions.

It is the researchers that will have the experience of whether there is openness to their inputs and their freedom to choose what to focus on, or if there are challenges to this.

There is a general expectation to researchers that they share what they know, and that all facts are on the table when decisions are made (Advisor 1). However, several researchers mentioned that their point of view on various topics was not gaining the attention of the decision-makers to the level they hoped for. Some expressed full trust and acceptance of the decisions taken by the national government during the pandemic and a respect for their roles in this setting. The level of agreement varied depending on their fields of scientific expertise. Even if most were positive about the processes, it was mentioned by both researchers and local decision-makers that there was a lack of openness and public debate around the decisions made. A certain sense of one-way communication, with public press conferences as central in communicating what had been chosen as national strategies on the way forward in coming through this pandemic. It was questioned whether this was affecting the democracy, the freedom to disagree, and the awareness that critical questions might be less visible in this form of communication (Researcher 1).

One of the central advisors to the government highlighted the importance of public debate. All who watched tv-debates where disputes between central actors were obvious, could see that there were variations and disagreements between those who made decisions about which strategy to go for. A healthy sign in a democracy, was the description by several interviewees. The advisor explains further:

> It is good that there is a public debate, but it is not possible to include all opinions, and one cannot drive those kinds of processes in a scenario such as this, since decisions are being made continuously.
> (Advisor 4)

Even if the public debate was spoken of as welcomed, the inputs from the public, or researchers beyond the central decision-making advisory board, may not have been as welcomed or looked at intending to learn their insights. Including researchers from for example the field of infection control, would not be the same as inviting all inputs from the public into the decisions made by the government (Researcher 1) As one researcher puts it "if you think

about other large-scale disasters, and Covid-19 is a disaster, then you bring along your critics into the round table and discuss with them" (Researcher 1).

Several of the interviewees highlight that in a pandemic, we do not have all facts on the table, but still must make decisions from whatever is known now. What is brought forward as a challenge in this by some, is that there might be other inputs that have affected the decisions than the mere facts and that some of the inputs have not been welcomed. This was unexpected and came as a disappointment for those who experienced it. It is described by one of the interviewees:

> During the process when one is considering new knowledge, it is common that disagreements arise. That is how science works. But that the public discussions are not allowed, and that pressure is put on employees in the health care sector to keep quiet, that is shocking.
> (Researcher 1)

4.2.1   Universities' structural framework

University staff working within administrative support services or core functions related to research, repeatedly refer to strategies and goals for the universities when describing how they work. Initially, several of the university administrative staff expressed confusion with regard to how they could contribute to the thesis topic. The topic of the thesis was initially introduced as research and research communication in the light of Covid-19. Their confusion is an interesting reappearing statement, considering the theme of the thesis and the formal roles of the interviewees; Roles directly connected to research and research dissemination and communication.

Central to the interviewees in this group is managing the daily work of the institution, "drift" in Norwegian: The operational part of keeping the university activities up and running, in whatever way possible with infection measures and lockdown (Administrator 1). Digital meetings, internal communication, and practical matters were in focus. However, once steering towards the questions of research initiation, research communication, and societal relevance of research, the interviewees had many thoughts about this. Central to their focus is research projects, and research that has received external funding, or has applied for such (Administrator 5). This is most likely since these are central activities to their roles and responsibilities of being

support staff or more of central strategic planning. Researchers do engage in research beyond such projects, as their work agreements include research time, in addition to lecturing and other tasks (Researcher 3).

The university as a regional actor and a central stakeholder with regards to knowledge production is mentioned by several administrative staff, again referring to the strategies that state this. They highlight the increased focus on impact in the various research grants given by the Research Council of Norway and various EU-funded programs (Administrator 5). Grants that are structured to steer research towards areas that are believed to be of importance regarding the societal relevance and need. However, as one researcher states, one cannot tell the future and predict what society might need (Researcher 6). Just as we could not, or did not, predict the pandemic, there might be challenges coming that are not included in the strategic focus areas set by governments and other sources of research grants.

The university communication staff describes that there are variations in public interest in various research themes. These are natural variations, as some topics may seem more relevant to the public than others. Themes that are close to people in their daily lives, might also be those that are easily communicated by the researchers, and the media might already have an interest in sharing this information. One administrative staff member, working in the communication department, uses the expression "marketable" when describing the research that is easy to write about and get publicity around. This is often topics close to people's interests: "What is part of people's lives catches interest easier than for example nanotechnology" (Administrator 6). Simultaneously, the university leadership has strategically had some ideas around certain topics that should be presented to show what the university does. These strategical choices have not been easy to agree upon until now. Administrator 6 questions how research at the university can be summed up into a limited number of topics and still represent the entire university (Administrator 6).

Beyond challenges in operating systems affected by restrictions, the challenges and where the administrators describe consensus or dissent is when they describe the roles of the researchers in their institution. As they deal with direct contact and support to researchers, they have their observations of how researchers work. One administrator explains the three main tasks of a university: "education, research, and dissemination" (Administrator 6). The staff members working on matters related to communication at the university, describe that some researchers have been more in the limelight during the pandemic and how these individuals have done so "on their own". In some cases, some researchers have been openly showing their

dissent or added new professional opinions to the public sphere, perhaps opposite of the national guidelines. When asked whether the university provides courses for researchers on how to approach media, or what support systems that are in place when they do, they all state that this is not implemented in their institution. There have been some courses and some guides, due to a high number of researchers requesting tools and methods on writing and being in the public (Administrator 4). However, the researcher is in fact on his or her own, and "this is about research integrity", Administrator 4 explains. Not only do researchers have this freedom, but they do also have a responsibility that is generally explained in the guidelines for research ethics on how to behave in the public (Administrator 2). It is mentioned how the researchers are part of the reputation building of the university and how it would not benefit the university if a researcher went public, were raising a critical voice and it would turn out that the researcher was wrong (Administrator 4). The responsibility is on the researcher to have his or her facts straight, and it may seem as an unwritten rule that they should tread carefully in media or the public until being sure of these facts, keeping in mind the reputation of the institution.

The mayors were all asked about their connection to the regional university and researchers, or groups are dealing with knowledge production that are in close collaboration with them. It is mentioned that the university students undertaking studies within health care are involved in the health care sector in the municipality. This is specifically for students undertaking practical placements in the municipality facilities, such as nursing homes or hospitals (Mayor 2).

4.2.2   Centralized advisory institutions

Universities, local governments such as municipalities and regional authorities, as well as the national level, had all developed crisis plans. Research was already being done on coronaviruses and potential pandemic scenarios. Still, the course of events which led to the Covid-19 pandemic came with an uncertainty that was mentioned by all interviewees.

The view of this topic for the advisors in central institutions providing knowledge to the national decision-makers is different. As one advisor puts it, about their role as knowledge providers during Covid-19:

> For us there is no choice, it might be different for almost all other institutions that can choose to join in or not. Like the university, they do not have to do any research about Covid, but they can if they want to.
>
> (Advisor 1)

The lack of knowledge about what this was, how this will affect us, and what the right ways forward are, led to an urge and a demand for knowledge. The challenge of gaining public interest in research was turned upside down, and the entire society and all decision-makers were waiting for knowledge to be produced and shared.

> When you talk about research communication, it is usually with a starting point that you struggle to reach out. This is an entirely different situation, where we do not have to think about creating interest and demand. It is not the ordinary -Why don't they listen to us or read our research? which is my usual experience.
>
> (Advisor 1)

The unfulfilled yearning for knowledge from all sides led to a special societal role for the advisory institutions at the national level. Representatives from these institutions have to some extent reached a level of national fame. Their roles in the public eye and how the knowledge was presented, did then to a high degree affect how much trust the society had in these institutions and the decisions made by the central government. Public disagreements could both cause disbelief, but at the same time also create trust, seeing that this is new for all and that the experts too are disagreeing (Advisor 1).

One advisor describes how they had to think broadly when both recommending rules versus regulations, but also how to communicate the information. The advisor highlighted that they experienced that some minority groups could have a hard time differentiating between strict regulations and the volunteerism that lies in the concept of *dugnad*. Even if being in a role of directly influencing the decisions made, the advisor states that an experienced challenge with a mixed and vague message from the government stating that citizens are volunteering to partake, when in fact there was not another socially accepted option but to comply (Advisor 4).

The same advisor describes how the main responsibility shifted from the Ministry of Health to the ministry of Justice early on. It was quickly clear that this was something affecting more areas of society than health (Advisor 4). The entire society was affected in one way or another, and it was natural for the Ministry of Justice to take over. With regards to health law and the balance of who decides what, those considerations had to be dealt with increasingly

getting further out into the lockdown and course of events. Aiming to achieve consensus and support required that the decision-making levels had to be contemplated to a higher degree than in the initial urgent lockdown stage. The experience was that the decision-making level was affected by the public support, or lack of it (Advisor 4).

The advisors providing knowledge and support to the central government decisions, do not highlight universities as such as more or less important than any other research institutions as knowledge brokers. The knowledge summaries that are often referred to, are collected from published research, and compiled and presented as the current facts available. As Advisor 3 puts it "for us it does not matter who produces the knowledge, as long as it is trustworthy" (Advisor 3). This after stressing how the knowledge summaries use formal databases and that they have close ties with the directorate producing them, ordering these on what they call "outcome measures". This can be various topics, in this case, exemplified within the child welfare sector on topics such as "violence, assaults, loneliness, school affiliation, sleep…" (Advisor 3).

Advisor 4 explains the dilemma between waiting for the knowledge to be present and clear and the decision-making processes in a scenario where there is just not enough information. They knew very well that the decisions they advised the government to make, were based on too little knowledge, it was just not there yet, but amid a pandemic, they could not wait, as would have been the ordinary approach. "It is worse now to not decide anything and wait. You must make a whole lot of decisions every day, and it is better to act" (Advisor 4).

4.2.3 Representing decisions

The mayors represent municipalities that have been experiencing different scenarios and levels of infection. This is from being among the most infected municipalities in the country, to having zero infection cases that have the source from within the municipality. The mayors all express how variations from one municipality to another cause both a need to adjust national advice and add on national regulations (Mayor 3). During the first lockdown in March, all were following orders from the central government, as nobody could know what this was or how this could spread.

The role of the mayors in Norway is to some extent similar across municipalities. However, the size and population of the areas they serve and the cultures and structures within

the municipalities differentiate. Although there are similarities between all four crisis management boards, it is first and foremost a group that has representatives from both political and administrational units. The role of the mayor in this, and the level of decision-making done by the mayor, vary too. But all mayors are unified in that they do rely heavily on professional advisory sources, and that the political aspects of party politics and opposition were lower in this period. The mayor has a face towards the public:

> I am to make sure that my inhabitants get through a critical situation in the best possible way. So, we must follow the necessary measures, and the crisis management team is mostly united in this.
> (Mayor 4)

All mayors describe a professional-political structure of the crisis management team but use various terms for the team, such as crisis leadership, emergency management, and crisis management.

With some variations, depending on the professional background of each mayor, they rely heavily on the administrational advisors on which road to take in the decisions during the pandemic, their level of trust in the regulations and guidelines from the national level, obviously depend on their formal background. Those with backgrounds related to health or crisis management, had a more critical view of the national advice. First and foremost, this was regarding the effectiveness of the advice given, with a point of view that the pace of the regulations was too slow, and that international updates on the topic were way ahead of the measures taken nationally.

The internal arguments within the crisis management teams were few, according to the mayors. As described by Mayor 2, the feeling of standing "shoulder to shoulder", was very strong, especially in the early stages of the pandemic. They do mention debates, and that the mayor does have a way to oppose decisions by taking cases further, to the presidency and the municipal council, if the mayor disagreed strongly with decisions made. However, none of the mayors stated that they have had to take that step (Mayor 2). They have not wanted to oppose the professional advice, given the responsibility of life and death that comes with that in a situation of the spread of a deadly virus. Mayor 2 describes how this was experienced:

> I have in fact been scared. […] Many groups are desperate, especially businesses. There was pressure from schools in the period, they wanted to close the schools. Parents have called. It has been tense, and hard to be a politician. It has felt reassuring to continuously

lean on the professional advice, one hundred percent, and time and time again referred

to that and said that that is what I am following.

(Mayor 2)

The role of the municipal doctor varies. Even though this is a central actor with a lot of power when it comes to decisions, the mayor realized that even if this actor has a strong case, they as decision-makers do not have to listen:

When I first got into municipal politics, I believed that when the fire chief said that we

had to do something about the fire security, for example in the culture house, we had to

do it, because it was so serious, right. If we had not done it, then life and health…But,

that is not the case, it is the city council that makes that decision.

(Mayor 2)

At the municipal level, there are variations in how the role of the mayor is perceived, and the structure of how decisions are made. Mayors are often in the public eye, called the people's elected leader of the municipality, but they all describe their roles as not as powerful. Especially regarding their roles in the crisis management team in the municipality. Several of the mayors state that they lean on the municipal doctor, who is the one making the decisions. All interviewed mayors highlighted that their role in a people-elect position was not in fact the one to make all political decisions alone. Mayor 2 states that the doctor has "all power on heaven and earth when it comes to infection control" (Mayor 2).

The role of the mayor was described by one as the face of the decisions to the public, relying on the advice coming from the national level, and then again on the guidelines presented by the administrative staff (Mayor 4). In the case of a pandemic, personal or political opinions regarding the lockdown of schools or other matters was set aside. No one could be certain of the outcomes, and they did not have enough knowledge to make any opposing decisions (Mayor 2).

One did mention that things took time and felt that the national government was too slow to give guidelines. This led to confusion and impatience, having to wait for the guidelines and simultaneously seeing that more was needed to be done faster, but not being able to do so (Mayor 1).

All interviewees express how trust in decision-makers is important in one way or another. "The public can easily see through tv-debates and in other settings that there are

disagreements among the directorates or institutes advising the governments" (Advisor 1). All facts are not yet on the table, and there will be professional differences in what is enhanced or chosen as a path. As mentioned, one advisor from a central directorate claims that these public differences may increase the trust in the government. The fact that these discussions are not kept secret may lead to less speculation about differences, and that it is transparent (Advisor 1). For the mayors, it is central to their role to be a spokesperson for decisions to the public. When decisions were taken at a national level, they could lean more back and did not have to defend them to the public. When going beyond national decisions, however, their role as a communicator was important in standing behind the decisions and presenting why and how decisions were made (Mayor 2).

There might be a connection between the understanding of community contribution through *dugnad* and the need for agreement and consensus on decisions made by the government. Having a shared goal and positive attitude to solve this together is a repeated topic among the interviewees. The ones who do mention a strong or mild opposition to this do so with reservations and repeat that they do support the government decisions. It might connect directly to social inclusion. Only a couple of the interviewees approaches this topic with fewer reservations and more resistance to agree upon the decisions made. This might have to do with the persons' professional expertise and backgrounds since they do have a professional background giving them more relevant expertise. For the mayors, representing the way forward, no matter if agreeing fully or not, must be done in this type of role. The lockdown of schools and children's sports and cultural activities are examples mentioned by one mayor. At the same time, the national liquor and strong alcohol-provider Vinmonopolet (The Wine Monopoly) was reopened. The mayor did the job, presenting and explaining why this had to happen to the public, but personally disagreeing to some extent, "it is so simple for us you know, grown-ups, to be shutting down the activities for children" (Mayor 2). At the same time highlights the need to trust the advisors on the matter "we did not know what to do if there is an infection in the society, in the municipality. We have only seen such things in the movies, science fiction movies" (Mayor 2).

Mayors and central advisors tell the story of how for example minority groups could have a hard time differentiating between strict regulations and the volunteerism that lies in the concept of *dugnad*. A mixed and vague message from the government stating that we are volunteering to partake, when in fact they do want us to comply. The description of this communication of health advice or health regulation is a fine balance when aiming to reach all

citizens and ensure that they both understand, support, and ultimately follow the regulations or advice (Mayor 2). One mayor experienced the need to directly approach specific groups in society and support them in implementing infection safety protocols due to a high number of infected persons within their communities. It was a complicated task and not easy to do without stepping on someone's toes or risking shaming an entire community. The mayor talks about how groups felt insulted or even discriminated against but that the mayor felt that it had to be done to give the right information to the people in the communities so that they could avoid infection. Being the face of the public and representing the decisions, the mayor also must work on rebuilding trust with these groups (Mayor 2).

Although local government leaders were grateful for decisions made centrally, there was also an expressed frustration with central government by a few interviewees. Bringing forward decisions made centrally in a role that is a public face of the decision-making power, it might be a challenge when one does not fully agree with the terms set by the central authorities. Several states that it may seem that once the government had decided on something, it was more than just knowledge or science that made them stick to the path that they were on. One example was the use of face masks, with more and more scientific evidence coming up that showed that it is important for protection. Mayor 1 describes a scenario that can be linked to anchoring bias. The mayor brings forward the debate around facemasks as infection protection, and how this was both disregarded and not advised in the early stages of the pandemic before it was a consensus around the benefit of the usage. Following the course of the pandemic through media internationally, and comparing the decisions made to what was done in Norway, the mayor felt an increasing unease about the course of events, and that Norwegian decision-makers were not following suit in what was close to a scientific consensus abroad on the use of facemasks.

> At an early stage with less knowledge about the Coronavirus, we have had to take a kind of active standpoint that facemasks are not suitable tools to prevent infection. But, when new knowledge then appears, it seems that one is locked in the old standpoint.
> (Mayor 1)

The mayor compares it to the debate around the use of seatbelts in cars back in the day. How irrelevant that person finds the debate about dangers of using mouth cover, with a comparison to all the dangers that were listed when implementing seatbelt use.

In the early stages of the pandemic, national decisions and the national lockdown were agreed on. However, as time went on, one could see that local varieties in infection made it

more sensible to have variations across the country. This theme goes back to the findings from the interviews with leaders in the advisory directorates. One of them states:

> It is a lot about health law here, many of our lawyers are working on this continuously. Who should decide? Is it national, local, or municipal decisions, and what works best? What level of public support will be reached if we have local decisions, where the decisions are made does matter for that specific municipality, and one supports it, instead of thinking that this is something that the government is enforcing on me. (Advisor 4)

They described how the focus started with a core health aspect, to shifting to the ministry of justice as the coordinating part not long into the pandemic. This has to do with the realization that this pandemic has consequences beyond the number of infected persons. One mayor confirms this, and stresses how presenting decisions to the public, without being fully on board with them, is a challenge. Closing schools has been one of the more difficult decisions to make, with a personal and professional aim to keep the schools open and protect the daily lives of the children as much as possible. To be in the limelight is a challenge, and the mayor states how much easier it is with national regulations:

> When it has been national regulations, meaning *have to*, it has not been a topic. Which is very comfortable. One does not have to be the one making the tough decisions and be on the spot, in a way.
> (Mayor 3)

The same mayor describes the importance of locally suitable measures and have in periods been part of agreeing to stricter regulations than the national, when the level of infection went up and follow up of population groups and infection control was necessary within the municipality.

At the same time, there are variations in the groups in one municipality to another, and within the municipalities too. It is also understood by the directorates providing the guidelines, as stated by a central advisor:

> It is a lot of work done by the researchers about what should be a recommendation and what should be regulations. What works best. Often, we think recommendations are ok. In many groups, such as minority groups, they say that recommendations, then you can choose to do it or not, it must be a law, right. But then again, when we think law, it might be too strict.
> (Advisor 4)

4.2.4 Academic freedom for researchers

The researchers describe this period from their scientific point of view. Their engagement in topics related to Covid-19 are directly related to the field they are working in, and the level of engagement correlates to this too. Participants who had expertise directly linked to the decisions taken by the government on infection measures were more concerned with their roles in contributing their knowledge to steer the decisions in what they saw as the right directions. Others could see the consequences in other parts of society and got engaged to ensure that these matters were handled, seen, and included in the processes of government regulations on Covid-19. This could be in areas such as mental health, child safety, or elderly care. The further from the direct impact the researcher had, or felt that he/she should have, the less the researcher saw the necessity of speaking out. The less the researcher even had any additional inputs to the decisions made, and fully went along without scientific hesitance.

This is for example the case of the history expert, seeing this pandemic from a historical perspective, with similarities of how to handle the diseases in society going centuries back. In this case, the research communication and activities in the media related to Covid-19 were always initiated by journalists or media staff contacting the researcher for more information. The knowledge that the researcher shared with the public was more with aims to put this pandemic into a historical perspective. History can be part of understanding the present. Bringing forward information to the public about the historical context in connection to what is experienced today may put things in perspective. On the question of whether there was anything that this researcher saw lacking in the government approach, the researcher answers that the government did a splendid job with what they knew at the time and took on their responsibility for the public health of the citizens. The researcher also added:

> There are two things necessary. One is a government that has the ability and will to undertake unpopular restrictions, knowing that there will be consequences beyond the pandemic. The other is a high level of trust in society. And in that way, Erna Solberg worked after the same principles as Kristian 4th or Elisabeth 1st did, but these two monarchs from the 17th century could compensate for the lack of trust in the population with a more or less unequivocal power.
> (Researcher 4)

The researchers all speak of their academic field with engagement. Those who deal with matters related to infection, children, youth, mental health or elderly, had engagement and concern that

led them to actively take part in new research and initiate projects to find answers to current issues, and in some cases be part of the solution. This could be all from the national level to the local level of routines for the social worker they interviewed in the field.

All six researchers described their field of work as flexible, and that they were able to follow their fields of interest. In the scenario of the pandemic, with the infection spreading in the society, schools closing, and history playing out in front of the researchers, several felt a sense of responsibility as experts. They describe a feeling of urgency, a concern, and their efforts to share, provide more knowledge through new research, and implement their findings, with a common aim of a positive societal impact ultimately.

One question to administrative staff was about the role of the universities as an employer of the researchers, and how their public opinions on various research topics coincided with this role. Did they have a support system or backing "at home" for researchers who were out in the public, perhaps with a critical voice? Or were the researchers left to stand alone if there was a battle or a public debate that created personal difficulties for that individual? As is stated by a university administrator, asked about what backing the university offered its research staff:

> It is actually the case that researchers have that responsibility themselves, and they are the ones who have to face it on their own behalf. It is not something that the university as administration…, it is not always we know about, often we do not even know that researchers make these kinds of statements. And that is quite OK and goes within the academic freedom, which is something that the researchers are extremely concerned with, that we do not interfere in their academic presentations.
>
> (Administrator 6)

Researcher 1 describes how publicly bringing forward a debate and critical perspective on governmental decisions has caused personal stress. At the same time, how the conceived role and responsibility as a researcher, made it necessary to still speak out and states: "I could have kept my mouth shut, but I think it would be professionally unethical to do so. If one really believes that this is wrong" (Researcher 1).

The pressure felt by a researcher undertaking a societal role of knowledge sharer and contributor, might be felt too burdensome and risky to take when it is required to step into the public eye. Two researchers mention the TV debate where Gunhild Nyborg was critical to what she saw was not enough government restrictions, and how the response to her was to be laughed at or even mocked, and that her opinions were silenced quickly (Researcher 4). To feel like a

disturbance in a time set for agreement and collaboration, is mentioned by Researcher 1. This is the researcher that has been most actively engaged in the media during lockdown, out of the six interviewed: "At times I did get the impression that it was a burden that I spoke out" (Researcher 1).

Being in a safe position to speak out, for example, having a permanent job placement, or being a senior researcher with not much to lose, might be structures that are enabling enrollment in the public debate. One researcher mentions how the university gave the academic freedom to speak publicly but felt a lack of support and backing once in the center of the storm. The person got a feeling of being annoying or a disturbance, although this was never said directly to the researcher. The researcher continues to describe how being employed by a governmental university, gives both the university and the research staff a social mission in the community to spread knowledge. This highlights how the knowledge that exists within the university should not only be brought to the students, but the entire community at large, reaching the public.

The general attitude among the interviewees is a positive one, to contribute to solving this challenge. This can range from the solutions that are required to undertake daily management tasks, such as transferring the lectures or meetings from physical meeting rooms to digital ones. It can also mean being positive about the advice and rules that come from the central government and trying as best as possible to implement these on the local level. The use of the term *dugnad* by politicians and media, especially in the early stages of the lockdown included expectations to meet the restrictions with an attitude of positivity.

One researcher describes that during the lockdown, the researcher experienced less time spent on travel and meetings, more free time to do research, and had the opportunity to join a co-researcher on a project dealing with matters related to the societal impact on children during the national lockdown. The project came from a professional worry by a coworker. Seeing that certain groups of people and their support institutions were kneeling in this lockdown. The researcher asked colleagues:

> We want to find out more about this, what do you think? We do not have time to apply
> for funding or for processes or anything like that but do any of you want to join in?
> (Researcher 6)

The researcher had found it interesting and joined the project:

We said that this is interesting, we want to be part of this. We will make time for this, and we will just do it. Obviously, we got an approval from our institute leader, by all means, but it was OK. We did this as part of the university's societal mission within research.

(Researcher 6).

The researcher describes the importance of the flexibility in the research time that is baked into the work hours of the university-employed researchers. This gives the freedom to move quickly when seeing a gap in knowledge or a need for more research on a topic. With flexible structures in internal funding systems, the researchers can be partaking in current events and bring along results that are part of the solutions. And it all depends on their leaders, faculty deans, or institute leaders, whether they are open to this and gives enough trust to the employees.

The *Law of Jante* has been mentioned by interviewees either directly or indirectly as one possible reason why not all researchers are actively communicating their research in the media or try to share their knowledge that opposes policies that are made.

One researcher describes that those who have been publicly opposing the national regulations and guidelines during Covid-19 have mostly been in safe positions regarding their career. The researcher also describes a case where a person was not in a permanent position, and lost the job later, after facing enormous critique. The interviewee expresses concern about the lack of openness regarding government decisions: "I believe we have a democracy challenge if research cannot be publicly discussed" (Researcher 1). Being in a permanent job or being a senior in the field, as two researchers mentioned, their safe positions allowed them to feel freer when involving themselves in the public eye, often through newspaper articles or online debates.

A researcher states that it is positive that we do not have people protesting in the streets over governmental decisions, but that the backside is that if you as a professional do dare to question the decisions made, you "get the *Law of Jante* all over you". The researcher claims that many who could have spoken out in public, and had relevant and useful information to share, although critical, has stayed quiet. "If you notice the groups of people speaking out, they are either in permanent employment as professors, or they are retired doctors" (Researcher 1).

The insights from the communication department do show similar considerations and how the employee from the department believe the researcher might worry about being too public about their research. Presenting research to the public requires a simplification of the

research, and they might risk being misunderstood and losing control over the situation: "They are a bit afraid sometimes how it will be read by co-researchers, by their colleagues" (Administrator 6).

Another researcher can verify this, stating that throughout that researcher's career, there have been several storms over headlines made to attract attention to the topic of the research. Sometimes this has not been "academic" enough, or over-populistic. This specific researcher dealt with it through years of experience and self-confidence and a good reputation in the field, while these kinds of challenges may be too difficult to overcome for many.

It is often referred to by administrative university staff, that Universities operate "like a three-legged institution", with three central goals around the role to be an actor in providing education, research, and sharing of knowledge. Even so, an administrative staff states that there are most likely researchers who have never been in the media throughout their career as researchers. Some, both administrative staff and researchers, mention some sort of media training, short courses held for Ph.D. students or open courses organized by the communication department. But the overall attitude is that this depends on the person, and how interested and active the researcher is to present to the media.

The researchers highlight the connection between research and studies. The fact that their role entails both the time to do research and to be in close contact with students.

The researchers that describe their role as a knowledge sharer to the public, do so and refer to how they perceive the role of a researcher in society. Being employed by the government to be knowledge providers, but also with the engagement and responsibility that comes with having this role. The knowledge they get access to and develop is a public resource, and the gaps and lacks in areas in their fields, they see as their duty to address (Researcher 3). Even though it is part of the role as a researcher, the view of someone who stands out in the media a lot is perhaps of someone who thinks highly of him or herself or "is portrayed as a populist" (Researcher 5). The researchers do downplay how their media presence are or state that they want to include others in the limelight. It is not about them, but about getting the message across and out there (Researcher 3)

Researchers employed in a university have many roles. Research is just one part of these, and there is a large variation in how much time and investment academic staff members have in the field of research. The researchers interviewed describe how their role, being employed to both undertake research and additionally working as teachers, has a significance

in that the communication of the research that they do goes directly to the students. The students then bring it into their practice placements or workplace, and in that way, research is implemented more directly. «I believe that research communication towards the students might be the most important form of research communication we have" (Researcher 6).

With regards to linkages between researchers, universities and public service providers, students in practice placements are examples highlighted by the mayors, when asked about the connection to the university as a regional knowledge actor. Updated and relevant knowledge brought forward by researchers to students in lecture halls, then has a direct route into the workplace and service delivery system. This can for example be students on clinical placement in nursing homes. The importance of lecturing on up-to-date information is brought forward as key aspect of a knowledge provider. This can be exemplified concerning the acute relevance of topics such as infection control routines and knowledge about Covid-19.

This topic also relates to the previous theme of research communication and ongoing research. In this case not research communication *through* ongoing research, but *of* research that has not yet been published or peer reviewed. A professor might share information about projects that a person is undertaking, even though this is still in the making. Findings, methodologies, and new information learned through a research project might be relevant to share in class, and students might pick up these updates and bring it directly into their field of practice. This is a direct link between unpublished research and society, with the university lecture as the platform.

4.2.5 Research communication

Sharing research through media channels and social media is mentioned by both researchers and administrative university staff. Public library lectures for the public are one approach that has been made to get the research "out there" (Administrator 3). The university support staff has a clear focus on published articles and mentions the researchers that have been taking a place in the public eye through debates, in the news, or writing in various newspapers (Administrator 6). The administrators do not know of any direct link between the research at the university and the central or local decision-makers. The example they think of that might be the closest to this is the public hearing sent from central institutions to the universities on various topics, requesting feedback on decisions or plans (Administrator 3).

One researcher mentions how it is ironic that researchers can publish in international journals before even writing an article for the local newspaper and connects this to the role of the researcher to share knowledge with the public. Another connects the research communication to the public to the role of the researcher, of the universities in societies. Not only to bring along updated scientific facts but also to the role of bringing along scientific inputs that questions the decisions made by the government and make space for a debate around efforts and frameworks set, that does ultimately affect people's lives.

The advisory roles that provide knowledge summaries and advice to the central government decision-makers also have a role to implement the decisions and present the facts to the public in an understandable manner. There are cultural and language barriers to take into consideration. They also serve as a direct advisory unit to the municipalities and other entities around the country. A central advisor describes that they worked on various communication platforms:

> We have pushed the citizens of Norway with campaigns, both written campaigns, agreed with the governmental run tv station to send our information videos during the most viewed airtime. We have been on all types of communication.
> (Advisor 4)

The mayors, on the other hand, have a very different task to do. They present the facts given to them by others, simplified, and must present, and defend them, to the public. They state that they do follow news and are informed about the matter, but that going to the information source is crucial and to follow "linja", a formal control line of order (Mayor 1). This gives the understanding that although there may be local pressure groups or locally provided information from the researchers in the region, the lockdown and formal decision-making systems do not in general open for local decisions being based on these kinds of input.

When asked why historical scientific facts matter in an urgent pandemic, the history researcher describes the role as a support to the government, providing a broader view and giving the society an understanding of the facts that these kinds of regulations are not new. This has been done to combat infection for a long time. Asking the researcher, a follow-up question on this matter, if this research dissemination is part of providing trust between citizens and government, the researcher responded:

> I hope so. I think it is important to get the understanding that the Norwegian government has done a brilliant, from what I can understand, job. That it can contribute to

strengthening the understanding that the government's responsibility for public health is crucial.

(Researcher 4)

As *dugnad* is an opportunity for all members of society to contribute to the common good, the role of the researcher in this may be an increased sense of importance to participate, both to find solutions as to join in the debate and share the knowledge that they possess. The sense of togetherness and the common goal to get through this might be contributing to what the researchers describe as urgent, and important, and explains the motivations to work on the Covid-19 related work that they have done. Either through newly initiated research projects on the topic or through the dissemination of research and being in the public eye. This contribution is described below:

> We saw that this was a challenge in the society, where the university could be part of contributing. And that we could contribute as researchers and use the research competence we have got to get it started. I must use my competence to best benefit the society.
>
> (Researcher 6)

One researcher shares the views lifted by one of the mayors with regards to a sense of political stubbornness to an unwillingness to go back on earlier standpoints and decisions. «I believe that the mistakes that have been done were done without following the scientific principle of discussion, hypothesis, and reconsidering the hypothesis. The national advisory institutions are very competent but "none of us has eaten the truth with the spoon all alone" (Researcher 1).

4.3   Summary of the findings

The interviews with these 20 participants have given a glimpse into their reality, and insight into some of their experiences with Covid-19. All participants share their narratives of how it affected them in their professional lives.

These interviewees represent four categories of professional roles in the field of knowledge production and decision-making. Everyone brings in something more than their mere professional role, they are persons with various backgrounds and personal experiences, and life outside of work will inevitably impact the story told from their professional lives too. The first section of the analysis is a description of their experiences of the course of events. The

university administrators explain day-to-day changes in how activities have been affected and tasks have been solved. They participants report a change in workload, but not necessarily less to do. Home offices, online meetings, and solutions based on not meeting face-to-face, it has been an experience of both learning new technological skills, and looking for new solutions, but also something that in many ways did not alter too much from the reality before Covid-19. To not meet others does have other side effects than the ability to finalize tasks and get through the workload. They report some extent of exhaustion, tiredness, and a syrup-like state. The need to be seen and appreciated by leadership, that the *dugnad* effort is being noticed, is raised as an important factor. Not only to continue the *dugnad* but also to continue to come up with solutions to keep the motivation going at work.

The central advisors to the government have an entirely different pace in their stories. It has to do with the interconnection between their organizations and the central government. This direct link to decision-makers has made their workload increase. They report over-time and a very busy period during the pandemic. This can be with regards to preparing information material that will be spread across the country, or such as finishing the recommendations presented to the politicians. The latter is work that directly influences what is being decided for the entire country.

Again, it is words such as exhaustion being mentioned, but in this case more with regards to the increase in assignments given and the resources to handle them.

The mayors all describe the initial period as being led by the central government. The role of being a public spokesperson in their municipalities for decisions made was not always easy, especially when they did not completely agree on the solutions and had to implement decisions without full insight into what they meant or that they sometimes felt the central government held a different speed or focus than they saw necessary.

The researchers were all in one way or another, focusing on topics related to Covid-19. It seemed that the lockdown provided the freedom to spend more time on research closer to their field of interest, and less time on administrative tasks, commuting, and other matters that ate from their overall work hours. They report a need for flexibility when approaching new research, and the importance of researcher-initiated topics. The fact that they all saw areas where they needed to bring along inputs from their expertise, perhaps as a contribution to the *dugnad*, made the structural framework within the university to support this, crucial. But it is not only enough to have the time, and sometimes also the finances, available. The support from

other researchers and colleagues, the support from the leadership, and building a culture open for scientific disagreements and conversations before and during consensus were lifted as central for academic freedom.

The overall impression after the interviews is that the understanding of a national agreement on the decisions made by the government in this pandemic was generally accepted. There is an overall attitude toward contributing with to is required in their professional framework and their field of expertise. Being flexible and adaptable to whatever conclusions that have been made by either institutional, local, or national leaders were seen as an advantage (Administrator 1). It is, however, statements that offer food for thought with regards to hindrances or cultural boundaries that may have affected freedom of speech or collectively achieving consensus prematurely.

Chapter 5 – Discussion

The data collection and literature review for this project provided perspectives and relevance to the research questions at hand (RQ1 and RQ2). Firstly, to gain insight info potentially enabling or disabling factors for academic freedom in Norway during Covid-19 Secondly, bringing forward various factors that may have affected decision-making and the processes towards scientific consensus.

The interviewees described how they experienced this urgency. They were asked to tell their stories from the lockdown period. The interviews included questions about research production, communication, and decision-making. Themes emerged, and through these, the thematic framework for the literature review was defined. Academic freedom and scientific consensus were directly and indirectly repeated in these interviews.

The function of this discussion chapter is to show how the findings from the interviews are tied to the theoretical background given in the literature review.

Central themes under each research question will be sub-headlines. The discussion aims to provide answers and more knowledge around the research questions. This is done to get a broader perspective on the hypothesis of this thesis.

5.1   RQ 1: Have the Covid-19 urgency revealed obstacles to academic freedom?

Researcher 1 stated that the *Law of Jante* and *dugnad* can be part of silencing oppositional voices (Researcher 1). The TV debate with Gunhild Nyborg is mentioned by two of the researchers. One mentions her appearance as one out of few examples where public criticism of the governmental strategy occurred. But, in the same sentence gives her the title of "conspiracy theorist". Another, states with more concern that this show how critical voices were potentially shut early on (Researcher 1). It was not done by force or restrictions, but through social mechanisms in the language used by politicians, and the attention and wording used by the media (Jystad, 2020).

To join a *dugnad* shows who you are and your core values. The term, with its expected behavior, goes directly to the personal and professional reputation, and there is power in this. To follow the social norms might not correlate with keeping a professional integrity (Cappelen and Dahlberg, 2018).

5.1.1 A dugnad conformist or a dissident?

The description of Norway is of a country with freedom for individuals, a well working social welfare system, stable economy and trust between government institutions and citizens (Simon and Mobekk, 2019). One may then assume that this kind of atmosphere of openness must be ideal for scientific debate. The very same social mechanisms that keeps the society together and supportive of each other, may hold critical voices back. Norway is a country where there are ideals of egalitarianism, we are all equal, which is a strong fundament for academic freedom. The very idea that individuals should not be showing that they are better than others, does at the same time provide cultural structures that may disable the critical voices to speak up in fear of becoming an outsider (Capellen and Dahlberg, 2018). The interviewees describe this too. The social mechanisms that underlie the expected behavior when joining *dugnad* activities, may have caused critical voices to be undermined by both the media and by the consensus in the society. This may be inputs during the lockdown to have stronger regulations. Or other inputs in the opposite direction.

Insights to these kinds of challenges faced by researchers, have been presented in the interviews. The administrators expressed that the researchers do have the freedom to speak out on their field of expertise. But they will most likely have to face the media and the public response alone. Individual freedom as a core value in the Norwegian society is described in the literature (Rothstein, 1998; Berggren and Trägårdh, 2015, cited in Capellen and Dahlberg, 2018) This is also highlighted by the university administrative staff when they describe that they see the importance of academic freedom, and freedom speech for the researchers. This right require that they have the scientific facts to back their statements. They must be prepared to receive the feedback that might occur after presenting a public statement in the media (Administrator 4).

To question the decisions made in this *dugnad* spirit, for example as an outspoken researcher or a critical municipal mayor, may then have been seen as not joining in on the nation's shared commitment to solve the Covid-19 challenge (Nilsen and Skarpenes, 2020). Not obeying *dugnad* was now different than before and raising critical voices to the knowledge that decision-makers based their policies on, could also be seen as opposing our shared project.

Most interviewed researchers stepped back and did not feel they had anything to oppose to, and that it was not their interest to do so. This correlate with the academic field from where

they had their expertise. They state how their academic freedom is highly linked to having a secure position and support from their peers and leaders. This was especially emphasized by those who had raised their professional concern to government decisions in the public.

The rhetoric of *dugnad* made it possible to get the whole country to join in (Moss and Sandbakken, 2021). To work together in a volunteer activity made sense to the public. By staying at home, washing their hands, and getting tested when sick, people did an effort for the common good, and this reflected the values many connect to their narratives of Norwegianness (Moss and Sandbakken, 2021).

Rhetoric is a political tool, and *dugnad* was utilized by the politicians when presenting this common project. This required that everyone agreed to the premises that Covid-19 was urgent, dangerous and that everyone wanted to protect each other to prevent illness or deaths by this virus. Communicating these facts clearly was therefore important. The approaches and strategies to gain control differed with various methods around the world. Some countries chose stricter ways to get the message and goals they wanted across. To get the citizens to comply could be through rules, punishment, or in some cases force.

The administrators describe positive attitudes among the staff to join in this *dugnad*. They present how they translated the political rhetoric to be relevant for their work setting and adapted the term into their scenarios (Nilsen and Skarpenes, 2020). In these settings, they would engage beyond their ordinary tasks to solve this specific challenge and get things running as planned. The felt importance of the workplace at a university is here reflected in the loyalty of the staff. However, at some point, the extra effort of *dugnad* must be noticed by own leaders, to keep the motivation and loyalty. There is a limit to how much *dugnad* one can do (Administrator 1). It must relate to some engagement, that social reward at the end of the labor. If not, it loses its value and becomes unfair and exhausting. And with that, doubts about the proportionality of measures versus quality of life or felt emergency, may appear.

Correct rhetoric from the top management is in the long run not enough. A felt appreciation must happen too. Perhaps it can be pinpointed by the fact that the use of the term lacked the full expectation of a reward at the end. The social event, dinner or party or cake and coffee serving offered at the end of a *dugnad,* when cleaning up a community space or harvesting at the farm (Lorentzen and Dugstad, 2011). This part was not translated into a reward in this new *dugnad* setting. Getting appreciation, may further create engagement and social connections amongst the administration staff. Universities rely on the administration to actively

keep the structures and facilitate for knowledge production. The leadership's awareness on these matters is therefore indirectly important for the entire society.

The statements from the staff wanting more recognition with regards to their efforts is a finding supported by the literature. Both with regards to the fact that the cost and efforts of participating in *dugnad* were not the same for all members of society (Nolan, 2021). Even so, it was spoken of as something that did not differ between leaders and citizens, it was all about *us* (Kjeldsen, 2021). This may have been part of creating agreement through consensus and belief that we are all moving in the right direction together.

Although the threat of the virus and the need to stay safe is an obvious reward, there are extra efforts made in the Covid-19 *dugnad*. Not all activities related to the lockdown and contribution to combat the virus and keeping the societal structures up and running, can be included in the rhetoric of *dugnad.* This has to do with the seriousness of the situation (Ali et al, 2020) and the level of choice the person participating has. It may be demanded due to the professional role, and it may be that they go beyond what is expected, to contribute to the common project.

5.1.2 Communicating knowledge in a Jante culture

There are varieties in the Norwegian society about the stronghold of the *Law of Jante,* and some claim that the term is outdated in Norway (Capellen and Dahlberg, 2018). The researchers do mention the need for support and backing from peers and colleagues, and how the lack of such affects them. This can be understood better in the Norwegian setting when understanding that *Jante* may still be relevant. Being a researcher in the public limelight require careful balancing to maintain support and admiration, rather than envy and annoyance. Rule number 5 of the *Law of Jante* is: "Don't think you know more than others", and rule number 6 is. "Don't think you can teach others anything" (Capellen and Dahlberg, 2018). These are the exact assignments for the researchers, so maneuvering here might be challenging.

Research does not happen in a vacuum. Actors will ultimately affect both which research is chosen to be started, as the process, the outcomes, and dissemination of the research (Latour, 2005).

The roles of the universities are to bring science out and to be a neutral but factual contributor to knowledge (Bogenschneider 2020). At the same time, the universities' structures,

frameworks on financial support systems for researchers, and bureaucratic measuring of the performances, are perhaps limiting the freedom and flexibility of research (Bennich-Björkman, 2007). In this case study, the researchers do mention a strict bureaucratic system for gaining research grants or not enough time to do research, but they also highlight that they do have flexibility within their institution. Most of the departments at the university in this case study have a closeness between leaders and staff. That might be providing the freedom to adjust work plans or get internal funding to follow a research theme of their own choice. The general change in the university systems towards more measuring of research, a more strategical approach to what should be research themes and following up on EU topics or goals (Bennich-Björkman, 2007), is mentioned by the interviewees for t. But, at the same time, the institution in focus still maintains some of the old structures. It was for example simple for Researcher 6 to choose a topic that was found crucial to look at in this pandemic period. It was easy to get an approval from the leader to work on that idea. The available time to dedicate to research projects increased for some interviewees during the lockdown. Several decided themselves how they could contribute to the *dugnad,* through their role as a knowledge provider and communicator.

Researchers too are part of their communities and social groups, wanting to join what is acceptable and expected of them. In the early stages of the pandemic, one would assume that few aimed for or wished to be a noncomplier in the *dugnad* shared mission. The line between a professional person and a private person becomes blurry. How is one supposed to actively use freedom of speech and ensure openness (Bennich-Björkman, 2007) when that means to speak up and disagree with the central authorities on their decisions? Researchers explain the importance of collegial support, and how it may be dismantled once you are too much in the limelight and too negative (Researcher 1). The administrative staff working on communication or research dissemination, explains that they experience that many researchers are hesitant to take on a public role or to present their knowledge in the media, even if it is an expected part of their profession as a researcher. The administrative staff points out how outgoing researchers may seem attention craving or comes across as a "know-it-all" (Administrator 4). This is an unattractive feature in the *Jante* setting. The administrators recognize that it does take some extra effort, strength, and boldness by researchers to be in the public eye. Many researchers shy away from this task, although it is a natural part of their profession. The researchers themselves also report the same, and one brings along the example of feeling like a burden when speaking in public with a disagreeing voice, "getting the *Law of Jante* all over you" (Researcher 1).

The *Law of Jante* may have an impact on the freedom of expression and research dissemination activities. Whether or not a researcher has a scientific point of view that goes against what is viewed as consensus at the time, there is still a cultural barrier to cross to be in the public limelight. Simply to take on a role that requires being visible in society, for example, to write an article in the local paper, will be to present oneself as an expert. By doing so one may feel or be confronted with a self-image that is presented as more knowledgeable than others. Already at that stage, it might be that some are held back by the *Jante* social norms, moral standards, and ideals of humbleness (Telle and de Lauri, 2020).

5.2   RQ 2: Were knowledge-based decisions possible in the Covid-19 scientific knowledge gap?

The crisis and urgency created a time pressure on decision-making. This did not correlate with the facts available and at the same time, there was an overflow of information pouring in (Finset et al, 2020). The advisors and mayors highlight that to lead it so do something. In this scenario, action was expected. Doing nothing could have been seen as failing the citizens. The country needed to be led through this crisis, and there was an expectation to the leaders that they made decisions and that they made them quickly (Advisor 4). Regulations were in place from the beginning of the lockdown. Rules were eventually adjusted to the different regions in Norway and regulated as the infection rates changed.

Numerous actors are part of the networks where knowledge, research, and decision-making happen. All the roles involved matters and will affect the outcomes. This brief insight into elements affecting the various actors gives an understanding of how the stages and processes may take place in this specific case study. The various roles interviewed represents those who facilitate for and produce knowledge, those who gather and present it, and those who implement it. Inputs from the interviewees show potential challenges to knowledge-based decisions in the lockdown. Their insights connects directly to the literature on the matter of seeing what inputs and structures that do affect which final decisions that are made (Daloyot and Baram-Tsabani, 2021).

On questions of knowledge production, the researchers are central. Administrative staff that represents the structural support around this production and communication are central too. In addition, the advisors have a direct impact on the decisions that were made through their recommendations and knowledge summaries. The mayors were in a position where they got

orders from the central government that they had to implement and present. The local regulations they set in place did happen due to additional knowledge and the need to make further decisions for their specific municipalities.

5.2.1   Trust and expectations

In the Norwegian setting, the interdependent and trusting relationship between the governments and the citizens made the public seem generally positive to decisions made by the government in the first period of uncertainties and fear. The Nordic model is linked to individual freedom, but in this case, there was an acceptance of leaders making personal choices on behalf of the citizens, and extraordinarily strict regulations regarding peoples' private lives. This highlights the importance of consensus and social collaboration (Rothstein, 1998; Berggren and Trägårdh, 2015, cited in Capellen and Dahlberg, 2018).

Universities as knowledge brokers, are expected to create the necessary structures to enable new knowledge. They must facilitate the sharing of this knowledge through openness and academic freedom. This is legally regulated and part of the missions of universities (NOU 2022: 2).

The various actors describe the term trust in different ways. It is mentioned often and comes across as a core element in this case study. One can claim that trust provided the foundation to solve the challenge that was at hand. The findings from the literature review match the expectations presented by the interviewees regarding this. All participants described that they to some degrees have agreed to and accepted guidelines and rules restricting personal choices and freedom.

The historian described that what the Norwegian government did through the Covid-19 lockdown, was exemplary as a working welfare system. The literature findings present these kinds of expectations, a deep belief in the fact that the citizens will keep their rights and be included and taken well care of (Eklund, 2011: Witoszek and Midttun, 2019, cited in Simon and Mobekk, 2019). The citizens' general expectations of this being handled in the best way possible show the importance of trust in the Norwegian setting and to the various institutions (Moss and Sandbakken). The stable financial situation of the country plays an important aspect in this trust creating expectations to the government, that this crisis will be handled (Ursin, Skjesol, and Tritter 2020).

To fully focus on Covid-19 and go beyond the ordinary functions of one's role at the workplace, was to an extent a volunteer activity, especially for researchers employed at a university (Adviser 1). They did not have to focus on Covid-19 in their research, but the central advisory roles did. Their entire institutions were altered to focus on solving this specific matter (Adviser 3). While the other participants in the interviews were part of institutions that were highly affected by the pandemic setting, there were other tasks to solve that had nothing to do with Covid-19. Their extra effort was a *dugnad*, while *dugnad* could never be the term used for the central advisory institutions. At the same time, the motivation to present their research might have been big, and as Advisor 1 put it, the public interest in their research and the knowledge they gathered had never been this high before.

The central advisors did not take the task to provide advice to the central government lightly. Reoccurring topics are overtime and overwork, combined with the felt importance of their job. They were providing information directly linked to the welfare state's actions towards its citizen. A failed task here, would mean to failing the public's expectations and potentially losing this trust. This relationship between state and society and the rights of the citizens to be taken care of is deeply rooted in Norwegian society and a foundation in this mutual trust (Aakvaag, Engelstad, and Holst, 2019).

Central decision-making in a time of crisis would probably been challenging with opposing local authorities. The mayors all express trust in the decisions they were told to implement, and they felt confident that the financial support would be provided for, so that they could implement all necessary means to ensure infection control. They had to follow the central decisions, and some reported this with a sense of relief, in a time when there was a high level of uncertainties. They trusted that the regulations were well-grounded in knowledge but were open to the fact that there were still knowledge gaps.

Communication of public health matters to the Norwegian citizens plays an important part in the trust between the government and inhabitants of the country. Therefore, the expectations from the citizens seem to have been that the government would provide the answers as to what to do and how to go about this and that the leaders of the country did all they could to ensure the safety of the citizens (Aakvaag, Engelstad, and Holst, 2019).

Consensus and compliance go hand in hand with trust and understanding (Moss and Sandbakken, 2021), and this highlights the importance of sharing health information with the citizens. One central advisor problematizes how the government was aiming for compliance

with guidelines versus rules and regulations. In addition, the fundamental reliability that the government did the right thing is based on a reciprocity ideal that many in Norway may have grown up with, but that trust might not be at the same level among all inhabitants. Perhaps skepticism towards government decisions is larger in some groups of the population, for example, made by both interviewees and drawn from the literature, are groups that come from other countries where the ties and expectations to the government are different.

The approaches were different across the globe. The level of trust in the state varied, and the restrictions and implementation of rules as well. Strategies followed in other countries show how the public expectations to governments and vice versa can portray their mutual trust or lack of it. Olufadewa et al (2019) describe various country contexts around the world, with a specific focus on Italy and China and suggested solutions to implement in Sub-Saharan Africa. This example is relevant to the Norwegian context too, especially since the article concludes that strict regulations and laws is one of the central control mechanisms China has used, mechanisms that are suggested that other countries could adopt (Olufadewa et al, 2019). This reflects that the level of trust between governments and citizens in the respective countries where immigrants to Norway come from, may very well affect how they receive advice or regulations from the Norwegian government too. Central advisors to decision-makers describe how cultural differences made it necessary to adjust regulations (Adviser 3). The literature shows that citizens that have grown up with the concept of *dugnad*, also found the messages from the authorities unclear at times, with regulations that could be understood in different ways (Moss and Sandbakken, 2021). Perhaps the knowledge gaps made it difficult to provide clear enough guidelines to the public.

A strong sense of togetherness and consensus was expressed in the Norwegian media throughout the period, but the *dugnad* rhetoric was not enough in Norway. Not all citizens had the same understanding of the language used, they were affected in various ways and had various burdens related to infection and regulations, not always out of a volunteer effort or choice (Moss and Sandbakken, 2021). This is reflected both in the literature and in the interviews with several of the participants and goes into the topic of trust and expectations.

Another aspect was the openness around disputes on own strategies. This is especially exemplified by disagreements between representatives from central advisory institutions and the central government. Advisor 1 states that it makes the decision-makers more trustworthy. This might come across as odd for an outsider to the Norwegian setting. To show humbleness, that one does not have all the facts, is highly linked to the egalitarian ideal and the *Law of Jante*.

It might very well be seen as a weakness to not hold all facts in other cultural settings. To pinpoint this understanding of equality, and why this may create trust: Even the decision-makers are just one of the rests, not more important or intelligent than the rest of us. They shared that they did not have the possibility to be certain if their decisions were based on the right knowledge, since the facts were not yet ready.

In the interviews, there are statements from researchers who worked on topics where they had discovered knowledge gaps. The expectations to the government to ensure the well-being of the citizens and certain vulnerable groups in the community was seen as insufficient. There was a need to act. And the expectations to the societal function of universities as knowledge providers, adds to the motivation to bring forward more knowledge. This finding is talking to the literature with regards to the Nordic model of a welfare state where the expectation of the government is to ensure that all members of society receive their rights (Eklund, 2011: Witoszek and Midttun, 2019, cited in Simon and Mobekk, 2019). The level of trust in that the government was handling and considering all aspects of the situation at hand depends on the detailed knowledge of the individuals.

Although committing to restrictions and guidelines, the researchers did pay attention and tried bringing forward new information when they had it. The interest from the public depended on their topics. To bring forward updated information concerning the lockdown impact on the daily lives of vulnerable groups, is one example where the active approach by the researchers goes in line with the process of knowledge-based decision-making described in the literature (Boddy, 2008). The fact that these researchers knew something that they saw the government did not take into consideration, made them step up and speak out about it with various means, at the same time as they gathered more knowledge. Their communication of this research may make or break the public trust in decision-makers, when including the public in the flow of information about what have been the priorities in governmental decision-making (Askwall, 2020).

The public was interested in research findings about Covid-19. All interview participants describe this. In a knowledge society, the public expect and demand that the government make, knowledge-based decisions. Openness about research findings is also part of building trust (Askwall, 2020). The open library sources described by the library staff member are examples of this. The literature shows that openness about research findings and providing information to the public has been highlighted by central actors such as the European Commission and WHO (European Commission, 2022). This is also reflected on the local and

institutional levels through the narratives of the interview participants. The librarian's detailed description of open sources during the lockdown is an example where the role of the librarian in contributing as a new actor in trust-creating in society between decision-makers and the public (Chisita, 2020).

5.2.2 From facts to policies

The Norwegian society at large values openness and freedom of speech, researchers' autonomy and independence is also valued (Bennich-Björkman, 2007). The political rhetoric that was used in Norway was based on creating a sense of togetherness in the population, reaching across professions and roles. This was without a doubt a strategical approach (Moss and Sandbakken, 2021), and it was important for the politicians to find ways to both reach out with the information to the entire nation, and to ensure that the citizens agreed to it and complied. Science may therefore have been presented as agreed upon and factual, although scientific consensus was not yet reached. Researcher 1 expresses frustration over decisions made without including all relevant knowledge and state that the scientific consensus was achieved through all the necessary processes needed. The steps taken towards reaching scientific consensus is described by Sverdlilje (2018). Time, repetition, and testing as well as a large amount of research pointing in the same direction (Sverdlilje, 2018) is needed, none of which was ready when Covid-19 hit the world.

There are examples where oversimplification of facts, referred to here are the term *heuristics* (Boddy 2008) did affect decision-making across the globe. Advisor 1 describes the use of models in decision-making to calculate how the course of events may be given the use of certain restrictions or avoiding others (Janssen and van der Vort, 2020).

When asked whether the Norwegian central politicians showed bias in their decision-making, the central advisors to the government declined. This bias is when the scientific knowledge that suits a political agenda is chosen over other facts in decision-making processes (Chapman and Johnson, 1999). However, there are examples brought forward in the interviews where such bias can be a factor. One example is the decision to keep children's sports activities closed but re-opening the national alcohol beverage retailer Vinmonopolet (Mayor 2). It can probably be a scientific discussion around whether infection spread faster in kids' activities than at a store, or if this is an example where a decision was biased and based on other influences than scientific knowledge (Chapman and Johnson, 1999).

As both described by researchers and mayors, some areas of knowledge came across as ignored or overlooked or were not open for re-debates once new knowledge came along. The use of face masks for infection protection is one such example, where governments and their advisors kept holding on to the previous decisions and resisting looking again and reevaluating earlier stated facts. Discussions around whether this put a lid on an open, free debate have been ongoing. This is an example where anchoring bias might have been the case (Chapman and Johnson, 1999). The described importance of the TISK strategy in the literature (Nakstad, 2021) can provide an understanding that ensuring participation in this made this anchoring necessary.

The roles of the central advisory institutions in providing updated knowledge to the central government, come across as the core knowledge hubs of the crisis. The institutions have the role to collect all research and make summaries and advice based on these findings. A researcher based outside of these institutions could not easily infiltrate these advisory deliveries to the central government, but with published research available, the insights from all researchers on the respective fields should have been included in the summaries. As stated by the central advisors, it is not possible to invite all opinions. However, there are examples of how media coverage and actively engaging in news, writing columns for papers, or using social media, seem to have influenced politicians in their decision-making processes. Going beyond the traditional academic framework for research dissemination is also presented in the literature as crucial when aiming to reach policymakers (Wilkinson and Weitkamp, 2013). The example of childcare services and the engagement from a research group to highlight this topic show how bringing forward new insights that can support decisions may have an effect. It is not possible to state whether decisions favoring these groups in society might have been made with or without these outgoing efforts by researchers.

In knowledge-based decision-making, all the facts are on the table and presented to the decision-maker, for the most correct decision to be made, having considered all consequences and alternatives. This was an urgent crisis, demanding solutions. The central advisors to the governments repeated the importance to do something. This point of view is backed by the literature, and Janssen and van der Vort (2020) describe this as a test of the institutional structures. From the interviews by the central advisors, as well as the receivers of their efforts: all the other interviewees, it seems that these institutions passed this test. Being in the position that they were, the institutions showed the agility to quickly respond to changes, but also the ability to adapt the organizational structures to suit this urgent task (Janssen and van der Vort, 2020).

5.3 Summary of the discussion

In Norway, *Dugnad* became a reminder that a collective effort was needed (Moss and Sandbakken, 2021). The social power in this term, might have been holding back criticism. One may assume that fear of disturbing the joint effort and togetherness, ruining the *dugnad*, may have restrained some to speak up with their true opinions. The political language made the presentation of Covid-19 collaboration into an ideal of shared engagement and volunteerism (Moss and Sandbakken, 2021). It did require some extra-ordinary efforts and flexibility, and many aspects of *dugnad* were not optional. The mayors still had the roles of being spokespersons to their local communities. The researchers did have their work contracts and research time and in that the expectation to bring forward relevant knowledge to the society. The university administrative staff had to keep the institution up and running. And the central advisors to the government were knowledge-collectors and presenters to the government, as well as undertaking the implementation of Covid-19 information in the society. Covid-19 have made obstacles to academic freedom visible, and one crucial finding is the cultural aspects that play a part in silencing oppositional voices. However, it is the same cultural setting that enables flexibility and felt safety for researchers to express their points of view.

Higher education and research institutions in Norway have obligations to facilitate academic freedom (NOU 2022:2). Structural frameworks around research grants, university strategies, and time pressure impact the research done. In addition, loyalty and experienced support from colleagues and leaders matter, and affect the actual felt freedom for academic research and expression. The cultural sphere where the researchers are living, working, and moving within, will affect their willingness and ability to focus their research on what they find important, as well as to present their findings and share their knowledge.

Knowledge production and the communication of knowledge affected all interviewees in various ways. There are mix of factors surrounding and impacting what research is undertaken and how it is presented. Togetherness through *dugnad*, with expected behavior connected to that, creates challenges for dissent and criticism, especially when adding the underlying cultural behavioral expectations from the *Law of Jante*.

The speed in policy and regulations during the lockdown, combined with the context of culture, politics, and economy did matter with regards to knowledge-based decisions.

Trust is an essential point. The mutual expectations and the rights of individuals created possibilities to move in the same direction without the use of force or restrictions, to some extent. It did require that the trust was not broken. In Norway, openness around decision-making processes and sharing knowledge is part of maintaining a good relationship between government and citizens. The urgency required fast decisions, before reaching full scientific consensus. Political bias in a pressured situation could have occurred, and some decisions may have stayed anchored for longer than they should have. This could be due to a lack of information or the need to stick to decisions to maintain public compliance. The centralized decision-making processes and reorganizing of central advisory institutions show agility to act quickly and adaptability in transforming to the new situations, even over a longer time-period.

Knowledge-based decisions were possible during Covid-19, even if there were large knowledge gaps. History and related research were utilized to understand the scenario brought in by Covid-19. There are challenges with regards to anchoring bias and decisions based on other pressure points, such as economy, that are visible when looking back at governmental decision-making in Norway during the lockdown.

Chapter 6 - Conclusion

This is a case-specific study from Norway. Findings from this study may reflect the overall national challenges, and perhaps be of relevance across borders and in other societal and cultural settings. These insights provide examples of how research is produced, communicated, and brought into decision-making amid a crisis. The reader may use this information in other settings, and perhaps it can provide support in how other challenges demanding scientific answers and political decisions could be met.

There are both answers and new theory connected to the hypothesis for this project. It was important for the central decision-makers to achieve national agreement and to mobilize the entire country to follow the Covid-19 restrictions. The cultural framework and the urgency of the matter may have caused challenges for a truly openness for criticism, and this may have affected the academic freedom during this time. The urgency and need for public collaboration may also have led to decisions reached before the scientific consensus, as well as not altered when new knowledge was available.

6.1   Thesis summary

In Chapter 1, the introduction contained a presentation of the research problem, the hypothesis, and the specified research questions and study area. The project was based on the hypothesis that an important aspect to achieve collective effort and mobilize an entire society to follow national infection control guidelines, is to reach and maintain scientific consensus. A culture that promotes consensus may have affected the scientific progress that happens through disagreements and academic freedom, again leading decision-makers towards anchoring bias. Two research questions (RQ1 and RQ2) were selected to shed light on potential answers to this hypothesis:

RQ 1: Have the Covid-19 urgency revealed obstacles to academic freedom?

RQ 2: Were knowledge-based decisions possible in the Covid-19 scientific knowledge gap?

These questions provided the foundation for the work on literature, data collection, and analysis.

The study objectives at a macro level were described as aiming to gain insights into processes of enablers and disablers of academic freedom and knowledge-based decision-making. The three concrete study objective steps that were listed on how to gain this knowledge for this specific research project were through literature review, interview data, and connecting these.

In Chapter 2, the framework for the research done was presented through a literature review. This review contains a broad collection of updated knowledge on topics that support the understanding of the circumstances and processes that affected academic freedom, consensus, and decision-making. An overview of the background, the case-specific period of being amid a pandemic, and a historical, political, societal, and cultural framework was presented. Literature on general matters as well as directly on the Norwegian setting was included.

Communication of knowledge plays a part in both the understanding of academic freedom, political rhetoric, and consensus-building on scientific facts. When describing the Norwegian setting and in continuation to the topic of the Nordic model and trust in authorities, insights from articles that describe the communication of research in this specific context were included.

Two concrete themes from the lockdown period were then described. First, is the political rhetoric used in Norway during the Covid-19 pandemic. The language used by decision-makers when talking to the public reflects common values and ideals. The

volunteerism in *dugnad* and the role of such activities in Norwegian communities bring an understanding to the political rhetoric, including expectations to and among the civil society. Secondly is a description of the balance between recommendations and rules. This is where decision-making and scientific facts meet the public. Governmental strategies and approaches to gain support for their decisions become visible here.

The third topic of the literature review is knowledge-based decisions. This was included to learn about various forms of decision-making processes and to highlight challenges such as bias, that may affect the impact of scientific facts in these processes.

The final theme for the review goes into the topic of consensus. And while this topic is vast, the connection between science, decisions, and societal structures and cultures links this final part to the upper sections. An introduction to the *Law of Jante* gives insights to one aspect that may limit the felt academic freedom and ability to critically question consensus. The literature review responds to the first study objective for this thesis; to gain broad knowledge through academic literature on the themes of the project.

The methodology for the research project was presented in Chapter 3. The data collection for this thesis was interviews with actors that one would assume had a direct connection to the topics of the research questions (RQ1 and RQ2). University administrative staff were chosen because of their insights as support staff to bring forwards research through communication and other structures in their institution. Advisors working in central institutions were chosen to bring their insights to both producing, presenting, and implementing knowledge in society, in addition to having the role of advising others who make the overall decisions. Mayors were chosen as representatives for decision-makers at a local level. Researchers were chosen to present their insights on the topic being the ones producing the academic knowledge. The data collection answers the second study objective; to obtain first-hand narratives from actors within research production, communication as well as decision-making.

The body of the research findings through interviews was presented in Chapter 4. Here the insights are systematized as presenting insights from all interviewees. The main topics for the presentation of the research findings were divided into two. The first looking at how the various groups joined the *dugnad.* In the second the issues of consensus and challenges were raised. The participants provided insights into their professional realities, and the idea of togetherness and collective effort was often mentioned. Trusting and agreeing to government decisions was crucial, and concerns around premature decisions or anchoring was mentioned. Researchers' freedom to choose what to focus on, as well as to express their knowledge in the public was described as both working well and problematic. A cultural barrier was

dissemination of research when it meant being in the public. Especially if the collegial support was weak. This was mentioned both administrative staff at the university, and the researchers themselves.

In Chapter 5, the literature review and interview findings were brought into a systematic dialogue. The discussion was based on the two central research questions for the thesis and divided into four sub-topics. The aim was to bring forward answers to the questions and to add perspectives that would give answers or new perspectives on the hypothesis. This chapter provides the third study objective; to bring the gained knowledge through the literature and data collection together and highlight the aspects that may be part of affecting knowledge production and decision-making in this case study.

Central findings link back to the foundation of trust between government and citizens, and the mutual expectations. The political rhetoric is based on this. The urgency of the matter did play a part and the speed at which decisions had to be made. This did affect how the central government was able to focus and how this focus was expanded as the time went on and more information was accessible. It may have been a challenge to balance the task of making decisions fast, with the importance of being open to new information and then alter these decisions. To ensure public support, decisions may therefore have been anchored prematurely before actual scientific consensus had been reached. The historical and societal framework of equality and freedom is part of enabling academic freedom. While a cultural aspect such as *dugnad* could be part of reaching participation and compliance to infection measures, it could potentially too, especially in combination with the *Law of Jante* possibly hinder freedom of speech.

6.2   Limitations

When using interviews as primary data, it is always a potential limitation that participants may, perhaps without being aware of it, report inaccurately. Perhaps because of politeness, they might answer what they expect the interviewer wants to hear, or answer what they think is socially acceptable (Fishes, 1993, cited in Capellen and Dahlberg, 2018, p. 426). It is not easy to avoid this entirely, as we are all affected by the person we are facing. However, while undertaking the interview, it was important to keep in mind not to follow up inputs with any kind of judgmental or negative remark, and to keep the conversation open and relaxed.

This project was done during a global pandemic. Nobody yet knows how this will play out in the future. Perhaps there will be another global infection disease soon, leaving the analysis and conclusions in the thesis premature.

6.3 Policy implications

Through the findings and analysis, a few challenges have been raised. There are also strengths, potential, and enabling structures that it may be relevant to be made aware of, maintain, and nurture. The underlying trust and mutual expectations between government and citizens should be creating a safe space and foundation for freedom of speech and dissent to consensus. These issues still need to be addressed and worked on, and not taken for granted (NOU 2022: 2). In the following section are potential solutions to some identified challenges emerging from the findings and analysis.

6.3.1 Creating similar engagement to solve other challenges

Covid-19 was a crisis without an immediate solution. The importance of science i our everyday lives became clear. Time is needed for scientific consensus to develop (Budhwar and Cumming 2020), but Covid-19 required urgent action. Research summaries was presented quickly by centralized advisory institutions. Lessons learned from previous experiences with large scale infection was made applicable to this new challenge. The need to extract the relevant in the "infodemic" was obvious. Decisions were made, and facts were challenged continuously. The close connection between knowledge providers and decision-makers was crucial.

The aspect of mutual trust between citizens and government allowed gaining results in combating larger societal challenges that could go beyond that of Covid-19, utilizing and maintaining this trust through knowledge-based decision-making and strategical political rhetoric. The Norwegian government has in this period shown the ability to present decisions based on unestablished scientific consensus and still gain support. The level of trust and the continuous work to maintain this trust should be applauded before we investigate what may be the pitfalls of this. Communication strategies and rhetoric is core here. The insights to how this worked may be well transferred to the implementation of other restrictions, guidelines, or goals for the society. It may not be that Norwegians are positive about yet another round of *dugnad* but keeping the idea of connectedness and the ideals of the values and good citizenship, might support unpopular decisions also in the future.

It has been shown how recommendations can work efficiently versus rules if the seriousness of the matter is agreed upon. Covid-19 as a case study portrays the demand for scientific solutions globally and from multiple actors, and where these solutions are relevant for all societies in the world. Even though there are multiple global-reaching challenges, such as climate change, the case of Covid-19 has been of an urgency that has led to the expectations of effective political action. It is therefore interesting to consider if this kind of urgent approach and rhetoric that were used to get the country through the course of the pandemic, can be transferred to solve other challenges. However, the use of regulations and policy changes may ultimately be the needed step to ensure change when the threat seems too diffuse and the level of energy and engagement in the public for *dugnad* is worn out. The balance here must always be considered and adjusted to the challenge at hand. Policies related to urgent virus control will therefore differ to policies to avoid climate change, as the crisis may feel relevant to the individuals in the society, and therefore also affect their response to the crisis.

The researchers that expressed engagement to study Covid-19 related topics, did this with the point of view that there was a level of urgency to the matter. They wanted to make sure that they did their part in bringing along all facts necessary before decision-makers came to conclusions. Having knowledge about specific fields may have been a motivation to share what they know. This was when seeing the decision-makers either forgetting about vulnerable groups in society, technical solutions to combat infection, or the lessons we could learn from history.

One of the challenges faced is based on structural and cultural aspects, creating a need to further strengthen institutional culture for academic freedom. Regulations and shared commitment should be in focus to build and maintain this academic freedom and ensure open processes towards scientific consensus-building. Creating institutional structures within the universities to follow a trail of interest and flexibility in the researchers' work, can be part of maintaining this engagement among research staff. Financial support systems are crucial. Researcher 3 mentions how this made it possible to focus on a self-chosen topic, with support from the leader and coworkers. The bureaucratization of research, described in the literature and the interview findings, may therefore be of hindrance to this kind of freedom. There needs to be a balance between what is international, national, and institutional strategies. At the same time, flexibility and trust given to researchers to identify research topics they see the importance of, are important aspects to keep. Maintaining this freedom for researchers in universities has been underpinned as crucial to ensure academic freedom and also quality and relevance of research.

Covid-19 required that decision-makers continuously updating rules and regulations to solve the crisis. However, there are other large emergencies where the governments do not rush to solutions as quickly. A lesson learned from this can be how to enable central institutions to focus on combating a targeted challenge. Is it possible to use the same urgent methods, rhetoric, and restrictions to reduce CO_2-emissions or to combat poverty and global food shortage? The lockdown mode on climate change issues will not be possible, but perhaps this has given mayors the insight to how drastic decisions can be done, and that more radical strategies is possible to implement and get an understanding from the inhabitants. This given the use of knowledge distribution, support from reliable sources, such as the central advisory institution, and via financial tools such as compensation and free access to the equipment needed for the task.

The Corona Commission analyzed the lockdown period and how the Norwegian government responded to the crisis, and with this report, there are possibilities to investigate new policies and bring new knowledge into crisis management in the future (NOU 2021: 6). One example highlighted in this commission, and a topic is this thesis, is the consequences of the lockdown for vulnerable groups in society, such as children, youth, or families in need of support system. The consequences of inaccessible support when schools and municipal institutions were in lockdown became clearer as time went on. (NOU 2021: 6) A broader perspective on a lockdown would most likely influence policy earlier on if the Norwegian society were to experience this again.

6.3.2 Welcoming opposing points of view

NOU 2022:2 report of similar findings as this thesis. The rules and regulations are in place to ensure that researchers can and should contribute to debates around topics in which they are experts and bring in their knowledge. On paper it seems in place, but the felt reality may be different. The responsibility of the supporting staff, leaders, and colleagues at the university go beyond strategies, regulations, and plans. As suggested in the NOU, it is important to build institutional cultures of openness, by actively working to ensure that discussions are welcomed, are done in a professional matter, and creating room for dissent. Staff and researcher courses on the matter, media training and support from the leadership at the workplace is crucial in this matter. (NOU 2022: 2)

Being aware of the power that lies in societal and cultural preferences and expectations between citizens themselves, and citizens and the government, it would be recommended to bring these aspects into policies that protect the freedom to publicly disagree and speak up against a consensus. The protection of academics speaking out has been largely debated over the last few months. An Official Norwegian Report on academic freedom was published in 2022 (NOU 2022: 2), highlighting the very aspects of this thesis and bringing it into concrete advise and detailed suggestions for research institutions. Direct policy changes within universities are needed to support and encourage researchers. In addition, policies on increased transparency and openness for debate is needed with regards to central advisory institutions.

6.4   Further research

This is a story without an ending. The world is still amid a global pandemic. The vaccination rate around the world is rising, but new variants of the Covid-19 virus have emerged, and no one can tell what will come next (WHO, 2022).

The insight in this thesis is a door opener for several new research areas. The data collection of twenty longer interviews which has been divided in four different groupings of actors, was extensive. In each interview, new topics emerged when the participants allowed us to get insights to their experienced reality through this period.

The new theory emerged through this study give insights that might be transferred to understand other barriers, opportunities, and structures in societies with regards to the spheres and dynamics of politics, knowledge institutions and researchers. Studying how things were or were not done in a specific setting, might bring along tools of thinking and analyzing that can be used in other tiny glimpses into experienced realities that qualitative case studies provide. This opens for further research, and the data collection gained through this thesis is extensive and reveals several topics that could be looked at using the same material. This would require a new NSD approval and approval from the participants, however. The data material contains topic related to structures in the Norwegian society and the findings from the interviews went beyond the research questions at hand. Some of the related topics are as open science, libraries as knowledge brokers, internal policy structures within universities, and a deeper look into local versus national decision-making processes, and political opposition in a crisis.

Having the opportunity to look in retrospect to the "infodemic" that came along with the pandemic, a comparison between governmental decision-making and their roots in science would be of interest. The scientific validity of models used to predict or measure how various infection control measures would work out is one example.

A global comparison between nation states, their infection rates and support in civil society could be of interest. Either a selection of a few or a more overarching comparison with several nation states. As mentioned, there are vast varieties in how it has been approached and how the citizens have reacted to the restrictions.

Further and broader research on the topic of consensus, *dugnad* and *Jante* in the Norwegian setting in universities could utilize the findings from this study and be a natural follow up of the NOU 2022:2 on academic freedom. This could also go into how universities are working on implementation of recommendations in their daily work and institutional policies and bring along suggestion for them to use in their work.

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9. Appendices

9.1   Interview guides

Contents

Introduction:

I am grateful that you are willing to be interviewed for this thesis. This interview will take approximately 45 minutes and you are free to ask additional questions to clear things out and you decide what you would like to answer or not. I am looking forward to your insights on the topic. The interview will be recorded with a digital recorder, and I might make a few notes along the way.

A. Interviews with researchers:

1. Can you please describe your professional work?
2. Have you done research related to pandemics/social scenarios in emergencies previous to the COVID-19 time period?
3. Have you published on preprint servers, and what are your experiences with this?
4. Have you worked on research related to COVID-19 during this time period? If yes – please describe. If yes – have you produced preprints during this time period, or has all research been peer-reviewed? Do you have any thoughts around that?
5. Can you describe the processes from the idea stage to dissemination of research?
6. Can you give an insight to which goals you have for dissemination of your research? Why you do it, how you do it and when you do it?
7. Can you please describe how the organization you work for has structures and support systems for enabling research?
8. How would you describe the roles of administration, leaders, and research staff in initiating new research projects?
9. How would you describe the roles of administration, leaders, and research staff research dissemination?
10. Do you work on research dissemination very connected to the structures of your own workplace or are you closest ties and collaborations beyond university structures?
11. How would you describe the connection between research and policy making related to your own research?
12. Are there platforms or meeting points between researchers and policy-makers?
13. Who are initiating contact and are there challenges in these synergies?
14. Are there other external factors that influence research dissemination at your institution?

15. Do you have thoughts about your role in the society as a researcher and the role of your institution in society?
16. Are there actors and structures in place outside of your organization that influences your research and dissemination of research?

17. Would you say it is possible to relate the strengths or weaknesses that has been seen research communication for decision-making in this pandemic, that it might be a construction between society, researchers, policy-makers that has similar effects on other challenges we face, such as the climate crisis f. ex?

B. Interviews with administrative staff and leaders at research institution:
1. Can you please describe your professional work?
2. In what way is your work related to research dissemination and research communication?
3. Can you please think back and describe the initial reactions at your workplace with regards to the daily work that you do?
4. Did you experience any increased contact with policymakers or other governmental actors in this period?
5. How would you describe the structures in place for the university to turn around and work on research under a time pressure such as this?
6. How would you describe the roles of administration, leaders, and research staff in initiating new research projects?
7. How would you describe the roles of administration, leaders, and research staff research dissemination?
8. Are there other external factors that influence research dissemination at your institution?
9. Have you been involved in research communication related to COVID-19?

C. Interviews with advisors in central advisory institutions:
1. Can you please describe your professional work?
2. Can you describe the period we have been through now and how decision-making has been done on national/regional/local level?
3. In what way have local researchers and research institutions been included?
4. In what way is your work related to research dissemination and research communication?
5. Have you been involved in research communication related to COVID-19?
6. Did you experience any increased contact with researchers, administrative university staff, policymakers or other governmental actors in this time period?
7. Budgets and competence building in municipalities.