

Socio-Educational Policies and Covid-19 – A Case Study on Finland and Sweden in the Spring 2020

Jyrki Loima*

Faculty of Social Sciences and Business Studies, University of Eastern Finland, Finland

Corresponding author: Jyrki Loima, E-mail: jyrki.loima@gmail.com

ARTICLE INFO

Article history

Received: June 16, 2020

Accepted: July 03, 2020

Published: July 31, 2020

Volume: 8 Issue: 3

Conflicts of interest: None

Funding: None

ABSTRACT

The present study compared socio-educational policies and argumentation in Sweden and Finland during Covid-19 pandemic in March-May 2020. Countries were selected, first, due to similar tuition-free basic education, which performed high in global surveys. Second, no pandemic socio-educational research existed from Nordic countries. National responses were different. Sweden kept the society open, while Finland declared emergency and partially closed the schools. Research method was hermeneutic and phenomenological. The data discussion triangulated 1) statements/information of central administration, 2) instructive releases, 3) related educational, pandemic, and other research, and 4) responses by stakeholders. The findings were surprising. The policy and argumentation strategies failed. Central administration was observed to underestimate the guardians, let alone their needs for argumentation. Swedish policy obscured mandates and restricted information, while declining trust and, finally, causing the data failure. Finnish policies faced similar challenges. However, no break in schoolwork took place, but remote learning was successful in epidemiologic and curricular senses. Moreover, Finland revealed that most school closure studies were contextually outdated. Success occurred in operational level collaboration of homes and schools. More multidisciplinary studies are needed for improved pandemic responses.

Key words: Socio-Educational Policy, School Closure, Pandemic Covid-19, Argumentation, Remote Learning, Curriculum Comprehension

INTRODUCTION

Task, Purpose and Research Question

This comparative case study focused on socio-educational policies in Finland and Sweden during Covid-19 pandemic in the spring semester 2020. The purpose of this research was to analyse trends that occurred in compulsory education central administration epidemic response, and policy. Consequently, argumentation, instructions and arrangements were followed. Furthermore, the current study investigated consequent learning environments of both Nordic countries during March-May 2020. The importance of this study arose, first, from the absence of previous Nordic comparative pandemic educational studies, as well as social and political factors listed below.

Finland and Sweden were selected for this purpose out of the 188 school closure countries in April 2020 (The Lancet Child & Adolescent Health (The Lancet), 2020; cf. UNESCO, 2020), since they both have had similar tuition-free basic and secondary education systems. Primary and lower secondary education together construct compulsory 'basic education', which last 9-10 years (Basic Education Act, 1998; Skollagen, 2010). Second, their basic

education has been regarded as a national privilege. Third, their systems have been exceptionally good in global mainstream. By and large, Nordic education has been internationally highly ranked for already two decades, belonging to Top 12 in international assessment 2018, (Program for International Student Assessment (PISA), n.d.; Lamb et al., 2017; Sahlberg, 2015; Tucker, 2019; on Swedish students, see Hellberg, 2020). Moreover, education has remained as a public sector service, while the number of private schools has been relatively small (although growing) in Sweden, as well as in Finland (Statistic Centre of Finland (STAT), 2020; Specialpedagogiska Skolmyndigheten i Sverige (SPSM), n.d.). National basic and secondary education has remained tuition-fee with an exception of private international schools (SPSM, n.d.). To underline the academic value of selected country cases in Covid-19 outbreak, their social pandemic reactions were different from mid-March 2019 onwards, regardless of administrative similarities (Finnish Government (FGovt) 2020a; 202b; Ministry of Education and Research of Sweden (MinER), 2020a; Folkhälsomyndigheten (FHM), 2020a; Finnish National Agency of Education (FNAE), 2020a; Swedish National Agency of Education (SNAE), 2020; cf. Napier et al., 2014; UNESCO, 2020). Social

restrictions notwithstanding, governments kept their internal borders open and continued traditional cross-boundary collaboration in March-May (FGovt 2020b; Finnish Border Guard, (RAJAa,n.d.; RAJAb, n.d.; cf. Napier et al., 2014; for civil rights, e.g., Scheinin, 2020).

Sweden had in official rhetoric's a more open, 'trusting', approach to Covid-19 outbreak and transmission limitations, while Finland declared the state of emergency and restricted social contacts, as well as contact teaching (Cameron & Jonsson-Cornell, 2019; MinER, 2020a; Ministry of Health and Social Services (MinHS), 2020a; SNAE, 2020; Ministry of Education (MinEdu) 2020a, 2020b, 2020c; SNAE, 2020; cf. Lipsitch et al., 2009; on political rhetoric's and Constitutional rights, see MinER, 2020a; Sveriges Radio (SV), 2020a; Lind & Namli, 2017; MinEdu, 2020a; 2020c; Emergency Powers Act (1991); Rautiainen, 2020; Hakalehto & Rautiainen, 2020). This study addressed a research question (RQ) to be answered and analyzed as a pandemic socio-educational trend indicator:

What was the main socio-educational policy and argumentation in pandemic response in Sweden and Finland?

The Data, Methodology, Limitations, Ethics, and Terminology

Regarding the data for a qualitative case study in a prompt Covid-19 socio-educational response, official information shared by responsible central (state) administration was essential. Accordingly, media releases of health, social and educational sectors were published on official websites and newspapers, let alone social media. Second, instructive responses given by other administrative organs in charge for curriculum implementation and social well-being were included into the core data. National Agencies and regional administration belonged to this group, including local education providers and healthcare. Third, overall state and social policy development information was monitored, and included. The fourth data layer were the statements and opinions given by active citizens in terms of collaborative, or other, feedback. Active citizenship meant participatory action, expertise, politics and/or expressions, in the socio-political national response. In addition to previous, active citizenship also has been a curricular goal (FNAE, 2014; SNAE, 2018). Some statistics were also needed to support the discussion, but qualitative approach mainly targeted the trends set in the RQ. Finally, international research on social development, health sector progress, and political changes were included, let alone accumulating reviews on global – and local – healthcare and education sectors.

Methodologically speaking, this was a qualitative case study. Second, it compared the data from similar countries, but with different first phase responses. Consequently, to analyse and comprehend the data of an on-going pandemic process, hermeneutic phenomenology offered the most suitable research toolbox (Heidegger, 1993; Gable & Yin, 2014; Landridge, 2007; Loima, 2020; Miller, 1996; Sloan & Bowe, 2014; Van Manen, 2006, 2011). Phenomenological, qualitative understanding has aimed for deepening comprehension,

while hermeneutic approach to the data acquisition has requested more depth than a description or statistics (Heidegger, 1993; Peim, 2018; Tucker, 2019; Van Manen, 2006). Phenomenological and qualitative comprehension may be constructed according to a research topic, covering various viewpoints and data sources (Heidegger, 1993; Landridge, 2007; Van Manen, 2006). Hermeneutic approach allowed summarizing triangulation of the recent, updating and cumulative data in a rapid change (Gayle & Lambert, 2018; Halder et al., 2010; Viner et al., 2020; also Lipsitch et al. 2009). Epidemic burst also reflected in the data availability, since English sources occurred after a 3-6 weeks delay. Sweden published most of Covid-19 releases in five domestic languages (MinEdu, 2020c; 2020d; MinHR, 2020a; MinER, 2020a; Regeringskansliet (RegK), 2020a; FHM, 2020a, 2020b). Prompt pandemic response also created unexpected and tricky sidetracks, which the data aimed to include and acknowledge. Consequently, material in Swedish and Finnish languages were included to collect wider, original perspectives. Countries were discussed according to emerging socio-political responses timings, Sweden first.

Limitations of the study may occur, first, as the restricted data of early response. Second limiting factor was the above-mentioned cumulative characteristics. Starting from a single weak central administration signal, the amount of the related data grew rapidly in just a month. The exponential growth correlated with other information of Covid-19, as well as the severe characteristics of pandemic. Furthermore, the responsible officials in both countries applied more restrictive media release strategies in April-May, thus making it harder to construct a prompt, or holistic, picture other than unspecified "national", meaning something inside the state borders (cf. Lipsitch et al., 2009; FNAE, 2020g; Yleisradio, 2020c). The restrictions of the official data were obvious from late April onwards in both countries. Even pandemic task groups set by politicians had difficulties in getting relevant information. Moreover, national resources were surprisingly heavily emphasized in official releases. The global pandemic dimensions or the supporting data opportunities from abroad weren't utilized by authorities in their national releases (cf. Lipsitch et al., 2009; THL, 2020b; FHM, 2020b; Yleisradio, 2020c; UNESCO, 2020; World Health Organization (WHO), 2020). Because of several listed limitations of the data, more interdisciplinary studies will be needed for holistic pandemic responses.

In terms of research ethics, private citizens appeared anonymously (e.g., guardians NN, private opinions), while offices and officials were named according to their public responsibilities and duties in question. Irrespective of "standard" academic ethics, individual tragedies remained not only anonymous but also absent from the text. Institutions were named, of course.

Terminologically, *policy* was understood in its wide sense, covering reactions to environmental changes and challenges. *Isolation* and *social distancing* meant here the same non-pharmaceutical interventions (NPI) as in various other studies. Social distancing grew up to a level of a *self-quarantine* (self-arranged isolation at home) for those,

who had symptoms and suspected or verified infection (cf. Cauchemez et al., 2009; MinEdu, 2020e; Wilder-Smith & Freedman, 2020). ‘Remote teaching’ has been recognized as *distant teaching and learning*, using e.g., virtual connections in instruction, work and assessment. ‘Contact teaching’ has meant traditional, close learning and teaching occasions, noting curricular varieties (FNAE, 2014; SNAE, 2018; FNAE, 2020a). A terminological nuance was *technology-assisted contact teaching* in Finland. Education providers may use suitable technology from any school facility to offer lessons and learning environments for pupils, who can possibly be located elsewhere. Legislative interpretation had included it into a contact-teaching context in Finland (FNAE, 2014; Hakalehto & Rautiainen, 2020; FNAE, n.d.). Tellingly, *basic education* meant compulsory primary and lower secondary grades. Closely related to this was an early childhood education, as well as preschool classes, in kindergartens.

Background, Pandemic Situation and Related Literature

“Today, with influenza vaccinations available and established health-care systems, we might feel that the events and stories of the 1918 pandemic are distant from our everyday lives” (Gritti, 2020, p. 36).

None of the European or other, let alone Nordic countries, hadn’t faced such a strong epidemic spread as Covid-19 since Spanish influenza 1918–20 (Gritti, 2020; Taubenberger, 2006; Wu & McGoogan, 2020). Accordingly, national health officials’ estimations were careful in February 2020 in both countries. The Finnish Institute for Health and Welfare (THL) leading epidemiologist, Mr. Salminen, told first in February 2020 that Finland would likely stay intact,

but “individual cases may occur” among returning travelers from epidemic areas (Wuhan, Northern Italy). Epidemic authorities soon corrected statements in early March to an estimation about “not knowing”, whether Covid-19 had entered Finland. A week later a state of emergency was declared due to pandemic (THL 2020a, 2020b; Aivelo, 2020; Gråsten, 2020; see also FGovt, 2020a; Ferguson et al., 2020; STAT, 2020; cf. Figure 1.; cf. Lipsitch et al., 2009). Restrictions started and were lifted gradually, as the monitored daily infection cases started to get lower 14th May – 1st June. Finland moved officially to a hybrid strategy (‘test-trace-isolate’). Consequently, the daily infection numbers rose again in late May - early June (FGovt, 2020b; MinEdu, 2020b; THL, 2020g; cf. John Hopkins University (JHU), 2020).

In Sweden, the early administrative response came by stealth, accompanied by a smooth public estimation from state epidemiologist, Mr. Tegnell. He said in late January that virus didn’t pose a “threat” to Sweden (RegK, 2020a 2020b; FHM, 2020b; Sveriges Radio [SR], 2020; cf. Ferguson et al., 2020; Lipsitch et al., 2009). However, in a timeline of nine weeks from the outbreak, if counted from the first emerging cases early March 2020, the official number of infected people was higher in Sweden than in neighboring countries. In altogether 11 weeks, the relative mortality rate of Sweden was globally the highest per population, and stayed high (RegK, 2020; THL 2020e; FHM, 2020b; STV, 2020; Andersson, 2020, 2020b; Orange, 2020; Vogel, 2020). Meanwhile, state epidemiologist Tegnell corrected his “underestimation” of the mortality. Sweden’s high death rate rose increasingly to media spotlights in late May-early June 2020. Irrespective of that, the state epidemiologist maintained a separate opinion from other experts (SR, 2020b; Andersson, 2020; Orange, 2020; Cohen, 2020;

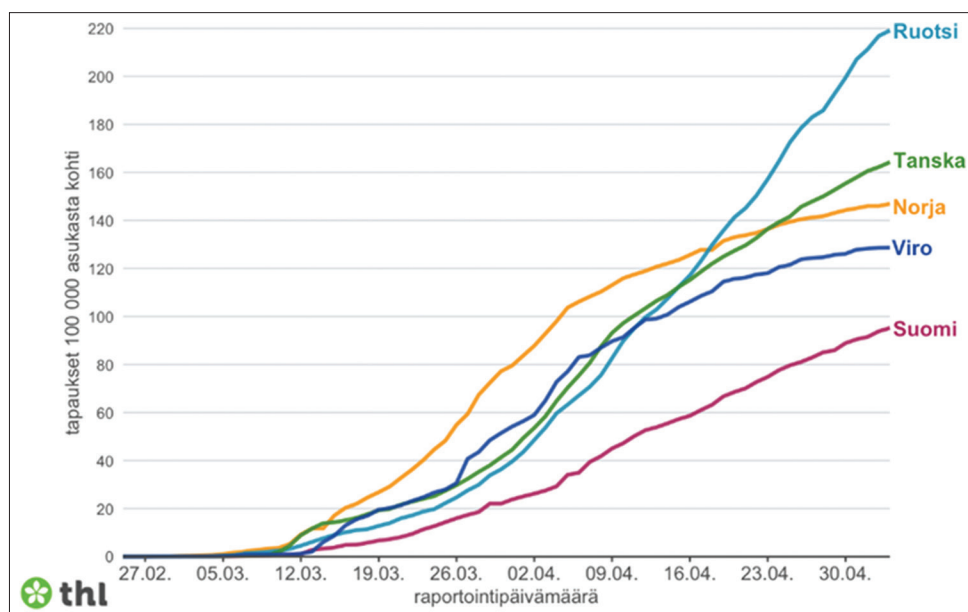


Figure 1. Confirmed tested Corona infections per 100,000 people, 6th of May 2020, in Nordic Countries. Testing numbers and strategies have been different. Consequently, figure didn’t reveal the whole process but showed a subsequent trend. Sweden was marked with light blue and Finland purple, while Denmark had green, Norway yellow, and Estonia dark blue. Vertical numbers: cases per 100,000 population. Horizontal line: the day of laboratory test confirmation.

Source: THL, 2020e; cf. THL, 2020g; cf. UNESCO, 2020; JHU, 2020; WHO, 2020.

Lindeberg, 2020). Finally, in on 26th of May, Swedish health authorities officially denied herd immunity policy (FHM, 2020c; Schulman, 2020c; SR, 2020b). A few days later, state epidemiologist also confirmed the change of Swedish strategy (Mossige-Norheim, 2020; cf. JHU, 2020).

Related literature has been interestingly multidisciplinary. The international medical research focused on virus contamination, sickness and symptoms, as well as the treatment (Anderson, Heesterbeek, Klinkenberg, & Hollingsworth, 2020; Cheng et al., (in press); Cohen & Corney, 2020; Treibel et al., 2020; Wu & McCoogan, 2020; cf. Lo et al., 2005). On the other hand, studies on socio-cultural and educational effects have been emerging, referring also to previous pandemic years and research on those years (Bruns, Kraguljac & Bruns, 2020; Burgess & Horii, 2012; Colao et al., (in press); Cauchemez et al., 2009; Ferguson et al., 2020; Lipsitch et al., 2009; Lo et al., 2005). Moreover, previous school closures during pandemics – like 1918, 1950s-1960s, 2009, 2013 – have been studied from their impacts, NPIs, and from epidemic, social, and economic viewpoints (Cauchemez et al., 2009; Lo et al., 2005; Viner et al., 2020; The Lancet, 2020; cf. Burgess & Horii, 2012; Zhang et al., 2011; Khoon Lee et al., 2011; Halder et al., 2010; cf. UNESCO, 2020; WHO, 2020). In addition, national healthcare officials have suggested strategies, like mitigation or suppression, both including temporary school closure estimations. While school closures have reduced modeled influenza outbreak peak transmissions even 29,6%, postponing the median peak up to 11 days, Imperial College London models run by Ferguson et al. (2020) suggested 2-4% decrease of pandemic mortality due to school closures in UK (Ferguson et al., 2020; cf. Cheng et al., (in press); Zhang et al., 2011; Nasifah et al., 2018; Khoon Lee et al., 2011). From the socio-educational focus of this contribution, the timing – so-called “trigger threshold” – of school closures has been more interesting than population mortality rate, however (Zhang et al., 2011; cf. Nafisah et al., 2018; Khoon Lee et al., 2011; Halder et al., 2010; Ferguson et al.,

2020; The Lancet, 2020). Attached Figure 2 clarified why school closures have been used in pandemic influenza years in the 20th century (Cauchemez et al., 2009). The virus was other than the one in 2020, but children have repeatedly been attacked.

Previous pandemic school closures have been understood as breaks or discontinued learning. This seemed to be a common pandemic comprehension also in 2020 (Cauchemez et al., 2009; Colao et al., (in press); Ferguson et al., 2020; Colao et al., (in press); The Lancet, 2020; Viner et al., 2020; Zhang et al., 2011; Nafisah et al., 2018; Halder et al., 2010; UNESCO, 2020). Closing types have been *total closure* (aborting all the students and staff), *class/school dismissal* (staff remained present but students not, or only a few), *reactive closure* (after infections found in facility) and *proactive closure*. Presented Covid-19 closure types notwithstanding, “the closure of schools” meant in Finland – in this study – partial school facilities closure for upper basic education grades (4th onwards) as a proactive NPI to “flatten the curve” (JHU, 2020; Cauchemez et al., 2009; Ferguson et al., 2020; Lipsitch et al., 2009; Halder et al., 2010; Viner et al., 2020; Zhang et al., 2012; FNAE, 2020a; FNAE, 2020b; MinEdu, 2020b; MinER, 2020a; UNESCO, 2020).

Regarding socio-educational research, an entire learning, motivation and psychological human growth research tradition has been born from a *self-determination macro theory* (SDT), presented initially by Deci and Ryan (1985) (cf. Ryan & Deci, 2000). Autonomy, competence and relatedness have been confirmed to be crucial elements for mental and physical wellbeing in all age groups. Encouraging environment, and atmosphere have repeatedly been revealed to enhance intrinsic motivation, which has enabled meaningful learning and optimal human functioning in global context of life-long learners. Accordingly, the development of physical - and other – learning environments, teachers and families’ support processes, as well as feedback, assessment, and curriculum development together with the 21st century skills have been

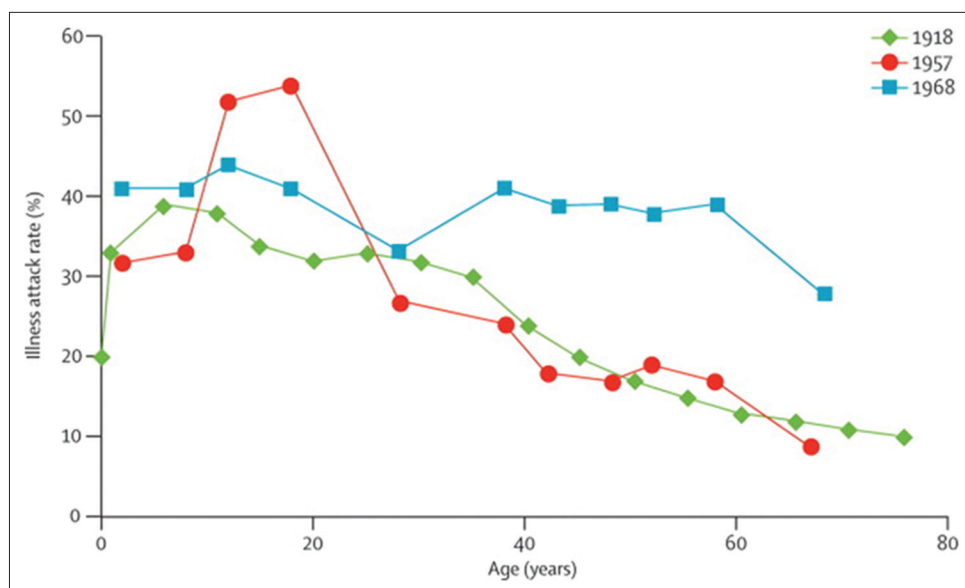


Figure 2. Pandemic attacks 1918, 1957 and 1968 by age cohort percentages (Source: Cauchemez et al., 2009; cf. The Lancet, 2020; UNESCO, 2020)

widely studied (Albrecht & Kavabenick, 2019; Atjonen et al., 2019; Borman et al., 2016; Burton et al., 2006; Butler, 2019; Deci & Ryan, 1985; Dede, 2010; Gardner, 1999; Gordon, 2006; Grolnick, 1999; Hecht et al., 2019; Kaplan et al., 2019; Lamb et al., 2017; Lim, 2006; Loima, 2019, 2020; Miller, 1996; Niemi et al., 2018; Pearlman, 2010; Pyhältö et al., 2014; Ryan & Deci, 2000; Sahlberg, 2015; Sormunen et al., 2019; Tucker, 2019; Vansteenkiste et al., 2010; Lee & Tan, 2018; cf. UNESCO, 2016, 2020).

NATIONAL POLICIES, ARGUMENTATION AND SUPPORT IN SWEDEN AND FINLAND

National Agencies in Education Policy Implementation

The Nordic countries have democratic representatives, and decentralized governance. Voted politicians run as Government (State Council), Parliament, and decide national policies on the grounds of officials' preparations in society sectors (EURYDICE, 2018a, 2018b). Ministries seldom have implementation mandates on themselves, however. Apart from coordinative organs, regional and local officials have implementation, adjustment, maintenance and surveillance mandates. To comprehend national policies, argumentation, and instruction analysis, a simple model of administrative National Agencies clarified the structures (Table 1).

Swedish Socio-Educational Policy - An Early Response, Crisscrossing Information and Collaboration in Terms of Past

In Sweden, the National Agency of Education collaborated from March 2020 onwards closely, sharing mutual

information for public purposes with national health officials, Civil Contingency Agency (MSB) and Crisis Information websites of state officials (FHM, 2020a; SNAE, 2020; MSB, 2020; krisinformation.se, n.d.; cf. Figure 3). In addition, public opinion was monitored frequently by officials, and observed 'trust' was informed every other week (MSB, 2020).

Tellingly, Sweden selected – for constitutional reasons and lack of time – an open social approach with some recommendations (MinER2020a; MinHS2020a; cf. MinEdu2020a, 2020b, 2020c; Lipsitch et al., 2009; cf. Ferguson et al., 2020). Sweden had strategically prepared from early February to close e.g., public institutions, if needed, by moderating temporary legislation. However, it took almost two months to gain such readiness (RegK, 2020a; MinER, 2020a; MinHS, 2020a, 2020b; Cameron & Jonsson-Cornell, 2019; cf. Lipsitch et al., 2009). Moreover, the government had limited public meetings to 50 people, urged senior citizens to stay home, set some restaurant restrictions and given other social recommendations. Official crisis and policy information given by central administration was easily available by April, since Swedish emergency authorities had spread the information in 20 domestic and foreign languages from late March onwards (krisinformation.se, n.d.; MSB, n.d.; MinER, 2020a; Lipsitch et al., 2009).

Followingly, Sweden kept basic education school facilities open, and contact teaching went on. Main official socio-educational argumentation started by telling that going to school was compulsory, while the risk of Coronavirus was low (FHM, 2020a; Lipsitch et al., 2009; Cauchemez et al., 2009; Ferguson et al., 2020; cf. Albrecht & Kavabenick, 2019; Borman et al., 2016; cf. Skollagen, 2010; SNAE, 2018). From 29th April onwards, the national officials instructed more about partial, but also total, school closures (MSB, 2020; SNAE, 2020; Lipsitch et al., 2009; Viner et al., 2020). SNAE held itself a right to close on institution, if needed. Previously, the implementation mandate had been in the hands of local administration as educational providers. To control the pandemic uncertainty, central administration activated its role (Lipsitch et al., 2009; Cauchemez et al., 2009). From the end of April, the principal of an institution, municipality, or National Agency of Education had authorization to close a whole basic education school or a part of it. Accordingly, they all could arrange remote teaching, use Saturdays and Sundays, or order other compensative arrangements for facility closures. The number of schoolwork could be revised upwards, but also reduced, according to local circumstances. Furthermore, the National Agency gave assessment instructions. In the 21st century educational terms, the external "format" and control was a more important argument for open basic education than learning and competencies mentioned in curriculum (MSB, 2020; SNAE, 2020; Skollagen, 2010; Lipsitch et al., 2009; Cauchemez et al., 2009; Colao et al., (in press)Viner et al., 2020; cf. SNAE, 2018; Albrecht & Kavabenick, 2019; Burton et al., 2016; Hecht et al., 2019; Kaplan et al., 2019; Lim, 2006; Pearlman, 2010; also Lee & Tan, 2018). As a mid-conclusion, the socio-educational policy steps were taken to withdraw implementation mandates from the field and

Table 1. The tasks and roles of National Agencies of Education in Finland and Sweden [Source: Official websites of FNAE, SNAE, (March-May 2020), (Volmari, 2019)]

| | |
|--|--|
| Finnish National Agency of Education, FNAE | Swedish National Agency of Education, SNAE |
| National core curricula, learning assessment outcomes with Finnish Education Evaluation Center (FINEEC), quality assurance (with local education providers) | National core curricula, support of schools, evaluation of schools |
| Statistics, analyses, reports and reviews, national assisting learning materials, in-service training, private school licenses, teachers' qualification certificates for foreign teachers, | Statistics, analyses, the Board of Appeal of Education complaints and students' rights, Swedish School Inspectorate, licenses for private schools, Special needs Agency (SPSM) |
| Instructive and directive role growing (March-May 2020- | Financial support for schools, in-service training, national learning materials, support, research on education |
| | Directive and supervisory role growing strongly (March-May 2020- |

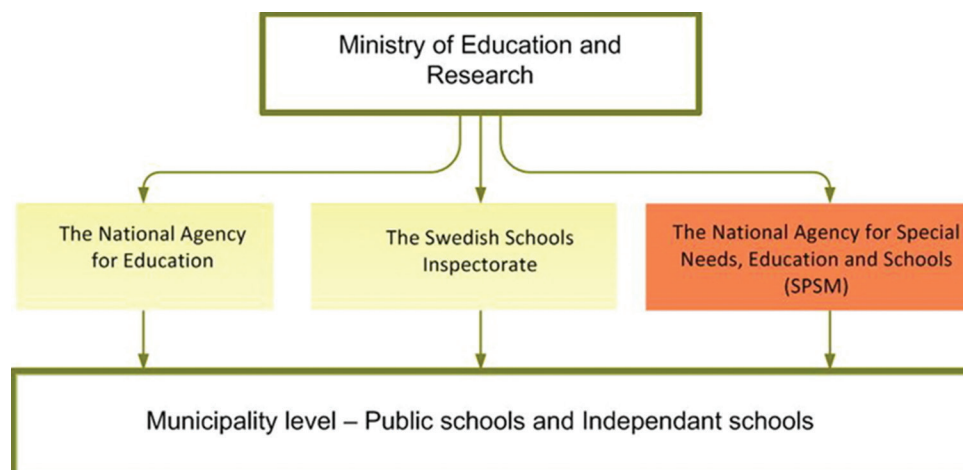


Figure 3. Swedish educational system, which has three separate mid-level agencies. In Finland, there is only one agency (EURYDICE, 2018a, 2018b; FNAE, 2020).

Source: Specialpedagogiska skolmyndigheten, (SPSM, n.d.)

take a firmer central administration grip to gain pandemic governance control. Exceptional, gossip-sensitive learning circumstances and amotivating “compulsory” schooling notwithstanding, the policy was to keep systemic functions as normal as possible, and gradually achieve a pandemic herd immunity (cf. SNAE, 2018; Skollagen, 2010; UNESCO, 2016; Kassnert, 2020; SR, 2020b; Lipsitch et al., 2009; about motivation *ad hoc*, see Schulman, 2020; cf. Albrecht & Kavabenick, 2019; Borman et al., 2016; Hecht et al., 2019; Kaplan et al., 2019; Deci & Ryan, 1985; Ryan & Deci, 2000; Vansteenkiste et al., 2010).

Why did such a counteraction appear? Contaminated school staff, occurring deaths, infected pupils and confusing information policies had taken place, as well as total school closures up to two weeks. Those were probably the main reasons for national reinstructions on 29th of April. Crisscrossing local acts were noticed by social or other media. Moreover, the capital area students’ infection cases in early April had created social unrest, since the guardians of children, or anyone else, were not informed at all. This was alarmingly amotivating, as well (Sjögren 2020; Schulman, 2020; Jällhage, 2020; Vogel, 2020; cf. Borman et al., 2016; Grolnick et al., 1999; Gardner, 1999; Zins, 2006; Ryan & Deci, 2000; Vansteenkiste et al., 2010). The same non-informative strategy was used in Uppsala, once a teacher got infected. Goteborg city told on websites that it will not inform guardians about suspected, neither confirmed, infections at schools. Individual privacy came first in pandemic circumstances, regardless of repeated curricular “sense of security” and family support – not to mention various studies on performance enhancement with competence, relatedness and autonomy (SVT, 2020; SNAE, 2018; Goteborg Stad, 2020; UNESCO, 2016; Albrecht & Kavabenick, 2019; Borman et al., 2016; Burton et al., 2006; Butler, 2019; Hecht et al., 2019; Lamb et al., 2017; Ryan & Deci, 2000; Vansteenkiste et al., 2010; also Loima, 2019). Children’s intrinsic motivation factors, holistic and socio-emotional learning (SEL) played a minor role in contradicting official, but also non-official, information and administration puzzle (The Lancet,

2020; Viner et al., 2020; cf. Albrecht & Kavabenick, 2019; Burton et al., 2006; Kaplan et al., 2019; Pearlman, 2010; Ryan & Deci, 2000; Zins et al., 2007). Gradually, some institutions, guardians and media started to wonder, why the herd immunity wouldn’t work – even if 25% of the school staff had been infected (Andersson, 2020; Schulman 2020; Fall, 2020; Jällhage, 2020; Olsson, 2020; Magnusson, 2020; Neuding, 2020; Vogel, 2020; cf. Kassnert, 2020; Lindeberg, 2020; Cauchemez et al., 2009; Ferguson et al., 2020).

In early March, when eight schools in Stockholm capital area were closed for Coronavirus risk for a single Friday, the state epidemiologist Tegnell criticized them heavily and had a meeting with capital authorities. A *reactive*, regional *school closure* had taken place against the strategy (Cauchemez et al., 2009). Tegnell had coauthored a pandemic school closure study in 2009 and seemed to be thinking that schools – and pandemic (measurements) – had remained the same as shown in Figure 2 (see also Cauchemez et al., 2009; cf. Sahlberg, 2015; Tucker, 2019; Lee & Tan, 2018). He referred to “important work” the parents were prevented from doing, if children didn’t go to school, thus regarding basic education schools as daycare premises. No students’ enhancing motivation and, thus, modern well-being factors were discussed in public (SNAE, 2018; Jällhage & Svahn, 2020; Läraren, 2020; Jällhage, 2020; Olsson 2020; Kassnert, 2020; also, Viner et al., 2020; Cauchemez et al., 2009; cf. Albrecht & Kavabenick, 2019; Dede, 2010; Lamb et al., 2017; Grolnick, 1999). According to the main epidemiologist, only symptomatic children were to stay at home, but suspected infections were not to be tested (Kassnert, 2020; cf. UNESCO, 2016; Vogel, 2020). Furthermore, the Swedish epidemiologist seemed to have regarded compulsory contact schooling as the only valid teaching in his socio-political “hidden curriculum” (Cauchemez et al. 2009; Colao et al., (in press); Kassnert, 2020; The Lancet, 2020; Viner et al., 2020; cf. Atjonen et al., 2019; Gordon, 2006; Gardner, 1999; UNESCO, 2020; also Borman et al., 2016; Dede, 2010; Kaplan et al., 2019; Miller, 1996). Subsequently, national health officials had a traditional 20th century understanding

of national curricula, teaching and facilities' importance as daycare and structural well-being premises for 7-16-years old (cf. Albrecht & Kavabenick, 2019; Burton et al., 2006; Lamb et al., 2017; Lim, 2006; Miller, 1996; Ryan & Deci, 2000; Lee & Tan, 2018). Apart from this throwback to the 20th century, healthcare surely had updating epidemic comprehension, but seemingly relied on the previous century epidemic school closure studies confirmed by Viner et al. (2020), leaving also students untested (FHM, 2020a; Nafisah et al., 2018; Zhang et al., 2011; The Lancet, 2020; Viner et al., 2020; cf. Goteburg stad, 2020; Gordon, 2006; SNAE, 2018; UNESCO, 2016; Vogel, 2020). Meanwhile, no studies on learning were published in the websites of SNAE. National tests at schools were cancelled, but a study on pupils' comprehension on those was published in April (SNAE, 2020a, 2020b; cf. Lim, 2006; Tucker, 2019). The Swedish educational policy in March-May relied more on contemporary non-pharmacological comprehension – of the past school closures – than innovative learning arrangements and children's tested security. Consequently, it lacked multi-professionally supported self-affirmation and ensured well-being of learners or their families (SNAE, 2018; Lipsitch et al., 2009; The Lancet, 2020; Viner et al., 2020; cf. Grolnick, 1999; Dede, 2010; Albrecht & Kavabenick, 2019; Pearlman, 2010; Sahlberg, 2015).

Conclusively, the "hidden curriculum" of crucial health administration persons and their official information affected more than the updated 21st century learning comprehension and curricular key competencies (Skolverket, 2020; FHM, 2020a; SNAE, 2018; UNESCO, 2020; Kassnert, 2020; Jällhage, 2020; Cauchemez et al., 2009; Ferguson et al., 2020; cf. Nafisah et al. 2018; The Lancet, 2020; Viner et al., 2020; Gordon, 2006; Grolnick et al., 1999; Colao et al., (in press); Dede, 2010; Borman et al. 2016; Ryan & Deci, 2000; Atjonen et al., 2020; Smith, 1991). In late May, the socio-political situation was already different due to internal and external pressures, added with growing foreign attention and media inquiries (JHU, 2020; Andersson, 2020; Mossige-Norheim, 2020; Fall, 2020; Lindeberg, 2020; Vogel, 2020; Reuters, 2020). Interesting enough – coincidentally – was that a university professor named "availability of teachers" to be the biggest problem in further educational development in Sweden. He told that exploring, or innovative learning environment development had been relatively modest (FHM, 2020a; MSB, 2020; Colao et al., (in press); Sjögren, 2020; Sandberg & Aschberg, 2020; Sandeberg, 2020; Colao et al., (in press); Neuding, 2020; UNESCO, 2016; cf. Dede, 2010; Albrecht & Kavabenick, 2019; Burton et al., 2006; Lamb et al., 2017; Loima, 2019; Lee & Tan, 2018).

..."culture can be understood as not only habits and beliefs about perceived wellbeing, but also political, economic, legal, ethical, and moral practices and values" (Napier et al., 2014, 1607).

How was the educational policy argumentation trusted in Sweden? According to repeated corona barometers (of more than 6,000 citizens), Swedish national healthcare had more than 80% trust, National Health Officials 77% of trust, and Government 69% of trust during April - mid-May

(6,169 participants). The Civil Contingencies Agency itself had 59% of trust, as the schools enjoyed 53% of support. Overall, Swedish emergency policy operations had 70% support, which also reflected to entire official Covid-19 response (MSB, 2020). Irrespective of this, or any other publicly 'trusted' society openness, Swedish Government had instructed upper secondary schools, vocational institutes and higher education to remote teaching 18th of March. Albeit the trust, selected school policy – and lack of tests on pupils and staff – gradually had increasing opposing voices towards the end of May. Then, the trust started to diminish rapidly (Sjögren, 2020; Landeberg, 2020; Andersson, 2020; Mossige-Norheim, 2020; Schulman, 2020; Fall, 2020; Skaraborgs Allehända, 2020; Jällhage & Svahn, 2020; Läraren, 2020; Jällhage, 2020; Olsson, 2020; Neuding, 2020; Reuters, 2020; guardians NN, private opinions, [Tweets], May 22-30; cf. Smith, 1991). Apart from public opinion, teachers trade unionists were not satisfied to restricted corona testing services (Jällhage & Svahn, 2020). Especially this was emphasized, when teachers didn't belong to "key professions" category in society. In late May, the "risky" professions in Sweden were reviewed, and the Ministry of Social Services reconsidered teachers' risks after deaths at schools (Läraren 2020b; cf. Lipsitch et al., 2009; Cauchemez et al., 2009; cf. Lee & Tan, 2018; about testing, see JHU, 2020, WHO, 2020).

In Swedish socio-educational policy, some single over-reactions in central pandemic administration comprehension against local practices and *reactive school closures*, started the social mistrust and citizens' rejective response. Policies and educational comprehension seemed to be most conflicting, when it came to safe and innovative learning environments vs. daycare maintenance in facilities (cf. Ferguson et al., 2020; The Lancet, 2020; Viner et al., 2020). Central administration sought solutions from the past, thus spreading an outdated comprehension of educational field and teachers' profession (krisinformation.se, n.d.; MSB, 2020; SNAE, 2018, 2020a; Cauchemez et al., 2009; Colao et al., (in press); Halder et al. 2010; cf. Dede, 2010; Kaplan et al., 2019; Ryan & Deci, 2000; Pyhältö et al., 2014; Lee & Tan, 2018). Finally, previous socio-educational decisions done already in February were not officially changeable even though the pandemic research had taken big leaps (Andersson, 2020; Mossige-Norheim, 2020; Schulman, 2020; Reuters, 2020; JHU, 2020; RegK, 2020b; SNAE, 2020b; Ferguson et al., 2020). Selected "trigger thresholds" for upper school closures appeared to be too late, when compared with infection and mortality rates with neighboring countries in late May (FHM, 2020a, 2020b; THL, 2020f; JHU, 2020; Andersson, 2020; Schulman 2020; Fall, 2020; Reuters, 2020; Cauchemez et al., 2009; Ferguson et al., 2020; The Lancet, 2020; Viner et al., 2020; Zhang et al., 2011). During the socio-educational policy implementations in March-May, Swedish education and epidemiologist authorities seemed to miss a unique opportunity for the pandemic – and special education needs – data collection, as well (Vogel, 2020; cf. Burgoyne, 2020). It told a lot about internal confusion and mixed viewpoints in the central administration.

Finnish Policy: Emergency Response, Obscure Information – and Remote Learning Success

“The COVID-19 crisis highlights that school fulfils not only an educational mission of knowledge acquisition, but it also satisfies the socialisation needs of young people.” (Colao et al., (in press), 3124)

Irrespective of Swedish schedule, Finland had closed the schools, first as a recommendation, from 16th March onwards. On the very same day, the Government declared the state of national emergency. Regional state agencies confirmed the school closures with no delay starting from 17th March (MinEdu, 2020a, 2020b; AVI, 2020). Apart from closing activities, early childhood education and lower primary grades (1-3) remained open for families, whose parents worked on critical sectors (MinER, 2020a; MinEdu, 2020b; MinEdu, 2020g; AVI, 2020; FNAE, 2020a). This kind of social comprehension of necessary, vital working sectors was mutual for Sweden and Finland. The official argumentation for proactive school *facility closure* was to restrict transmission of Covid-19 and, second, to protect the risk groups in national emergency (MinEdu, 2020a, 2020b; Hakalehto & Rautiainen, 2020; cf. Cauchemez et al., 2009; The Lancet, 2020; Viner et al., 2020; also Zhang et al., 2011; Khoon Lee et al., 2011).

Tellingly, school closure instructions recommended distant teaching for everyone but allowed crucial workers to have their children in contact teaching and daycare. Minister of Education, Ms. Andersson, asked symptomatic children to stay home, as well as their parents (AVI, 2020; Andersson, n.d.). Regarding “trigger threshold” timings, the digital leap to remote teaching took place early enough to limit the virus spread, since countrywide infection rate was less than 20 confirmed cases on 17th March (cf. Figure 1). Altogether, eight (8) percent of basic education pupils attended to contact teaching during the partial closure, while 32-35 % of daycare children went to kindergartens (MinEdu, 2020b, 2020g; Viner et al, 2020; Zhang et al., 2011). Curriculum and existing teaching practices already recognized virtual learning environments, as well as transversal core competencies to exist, be used and assessed (FNAE, 2014, 2020a).

No break in teaching or learning took place in Finland (FNAE, 2014, 2020a; cf. Cauchemez et al. 2009; Nafisah et al., 2018; Ferguson et al., 2020; Viner et al., 2020). In terms of contemporary international epidemiologic comprehension (Colao et al., (in press); Ferguson et al., 2020; Viner et al., 2020), Finnish basic education made an outstanding performance difference from other countries. Irrespective of that, the leading Finnish epidemiologist followed and accompanied Ferguson et al. (2020) and Viner et al. (2020) in his recommendations and estimations, criticising media comments and his loud opposition. He had also resisted school closures in late February – early March (FNAE, 2014; Salminen, n.d.; Viner et al., 2020; cf. Yleisradio, 2020c). In line with his Swedish colleague, the Finnish epidemiologist seemed to have an outdated comprehension about the 21st century curriculum and learning activities.

FNAE, or local education providers, didn't have much time to instruct the schools and/or teachers, but distant

teaching and learning started well. Local schools were prompt enough in their digital leap. University of Turku coordinated in late April a 10-day web survey, in which remote teaching and learning experiences, as well as welfare issues, were asked from. More than 50,000 pupils replied, pointing out positive learning experiences, like flexibility in timings, in addition to total absence of bullying in the remote period. In conclusion, positive experiences reflected firm intrinsic motivation for schooling during the remote learning time (Burton et al., 2006; Borman et al. 2016; Kaplan et al., 2019; Ryan & Deci, 2000; Loima, 2019; Liiten, 2020; University of Turku, 2020; cf. Colao et al., (in press); Viner et al., 2020).

On the other hand, pupils revealed in survey that they were worried about their guardians' well-being. Furthermore, they missed classmates. About 60 % of pupils had accomplished all the work during the remote learning period, while additional 35% told they completed “almost everything”. Learning difficulties seemed to occur to same pupils that already had decisions or enhanced or special support in close contact teaching and learning (Basic Education Act, Sections 16-18, 1998; Liiten, 2020). On the other hand, they were justified to close contact teaching during the closure (AVI, 2020). Apart from the sound self-assessment mainstream, upper graders seemed to feel uncertain, whether they had learned “enough”, likely referring to subject matter (cf. Atjonen et al., 2019; Loima, 2019). A detailed report and analysis about this survey will be delivered to education providers in October-November 2020 (Liiten, 2020; University of Turku, 2020; cf. Atjonen et al., 2019; Niemi et al., 2014; Pyhältö et al., 2014; Sormunen et al., 2019; also Miller, 1996). An overview on learning and self-assessment already revealed that upper graders had the shortest experience (1-3 years) in continuous assessment and self-assessment. Lower graders (4th-8th) had been performing it since 2016 (FNAE, 2014; Atjonen et al. 2019; Loima, 2019). According to a recent survey by FNAE, 75 % of basic education and upper secondary teachers had in late 2019 virtual learning environment tools arranged by educational providers. Almost all teachers had also used them, while project-based learning was familiar for pupils. Moreover, every teacher was familiar with continuous assessment, including self-assessment. Initiative results confirmed that already three years of curriculum assessment reform were enough to assess remote learning outcomes (FNAE, 2020d; FNAE, 2014; Atjonen et al., 2019; Loima, 2019; Niemi et al., 2018; Sormunen et al., 2019).

Local differences – regarding remote teaching and studying tools – existed, which was in line with core curriculum, and local curricula (FNAE, 2020d, 2020e; Atjonen et al., 2019; Loima, 2020; Niemi et al., 2018; Pyhältö et al., 2014; Sahlberg, 2015; Lee & Tan, 2018). National Agency's learning materials and instructions appeared to websites in early April, but some over-instructing details were soon withdrawn (cf. Basic Education Act, Chapter 2, 1998). As was the case in March, when Government hastily drafted “trigger threshold” schedules for closure, also early opening measurements included misleading interpretations about the decentralized administration. Consequently, unnecessary instructions and/or restrictions

on local teaching arrangements took place in reopening phase (Basic Education Act, 1998; FGov, 2020c; FNAE, 2020h; cf. Burgoune, 2020; Cauchemez et al., 2009; Hakalehto & Rautiainen, 2020; Viner et al., 2020; also, Hakalehto & Rautiainen, 2020; Smith, 1991). These misleading or irrelevant instructions were rapidly aborted from websites.

Repeated short episodes – that happened twice – gave evidence that governmental instructions, given by the Ministry and FNAE, tried to regulate more rules than their mandates allowed in an unexperienced situation of pandemic emergency (FGovt, 2020b, 2020c; MinEdu, 2020b; FNAE, 2020g, 2020h; Basic Education Act, 1998; Burgoyne, 2020; Colao et al., (in press); Cauchemez et al., 2009; Hakalehto & Rautiainen, 2020; Viner et al., 2020; Luukkainen, n.d.). For example, the Ministry initially “ordered” a closure, which had to be a “recommendation” in terms of Constitutional rights. Later, the Ministry and FNAE tried to force all the students to attend the reopened schools in May, irrespective of potential risk group members in families (cf. Viner et al., 2020). Only after the Non-Discrimination Ombudsman’s (NDO, 2020) statement, the right for distant teaching as a part of regular schooling for risk group families was also evident in May. Third, overruling of children’s rights and safety were the Ministry’s first reopening instructions (4.5.2020) for education providers without proper safety updates but mostly “normal” arrangements. Mentioned mistakes were corrected, but guardians and teachers, as well as Teachers’ Trade Union, got worried (cf. FGovt, 2020b, 2020c; FNAE 2020f, 2020g; Teachers’ Trade Union (OAJ), 2020; Colao et al., (in press); Luukkainen, n.d.). At the same time, the Minister of Education, Ms. Andersson, told that central administration already had started to prepare legislation for possible remote teaching in the autumn 2020, if the pandemic situation were to worsen. This message didn’t calm the worried guardians, either (Vesala, 2020; OAJ, 2020).

The distant learning period lasted until 13th May in Finland (MinEdu, 2020c; AVI, 2020). Given the updated pandemic situation estimation by Finnish Institute of Health and Welfare (THL 2020c), the Government decided to change its pandemic policy in early May to a ‘hybrid’ strategy, starting with libraries and basic education contact teaching (MinEdu, 2020d). Argumentation was epidemic, but also Constitutional (Vesala, 2020; THL, 2020a, 2020b, 2020c, 2020e; Helsingin Sanomat, 2020b). According to Ministry, altogether, 88% of basic education pupils/students returned to schools, while 56% of early childhood children started on 14th May. The percentages of returned pupils were enough to indicate the main trend, since 75 % of educational providers had participated in this survey (MinEdu, 2020f; Burgoyne, 2020; Zhang et al., 2011; Viner et al., 2020). Children and families seemed to have waited for the contact teaching. Moreover, the Ministry, as well as local education providers, had expressed their worriedness about those (estimated 4,000) children, who needed social support and special care (MinEdu, 2020g; FNAE, 2020g; Andersson, n.d.). According to official reports, estimations and the Data, no children were “lost” during the remote teaching and learning period, however.

In the light of timings, “trigger threshold” for reopening was quite successful, since no more than 250-290 pupils got quarantined in Southern Finland, being exposed to 12 confirmed infection cases (Yleisradio, 2020b; cf. Cauchemez et al., 2009; Viner et al., 2020). Previous school closure study recommendations had considered 6-8 weeks to be an ideal time to “flatten the curve”, but left it depending on the desired outcome (Nafisah et al., 2018; Zhang et al., 2012; Viner et al., 2020; UNESCO, 2020). Interestingly, Finnish Institute of Health and Welfare did not keep public records, or the specific Data, from infections at schools or exposed children. Instead of that, they summarized children into daily age cohorts. By the early June, there were 600 infected children altogether. Irrespective of the missing Data, individual teachers and National Broadcasting Company kept updated statistics from schools (THL, 2020e, 2020f, 2020g; Teacher NN, private opinion, [Tweets], May 29). In terms of official hybrid strategy guidelines (‘test-trace-isolate’), it was not logical to leave exposed pupils untested, however (THL, 2020f, 2020g; Teachers NN, private opinions, [Tweets], May 14-29; cf. FNAE, 2020f). While the Ministry was publicly worried about the equal treatment of children, it didn’t promote active testing for students (MinEdu, 2020g; Andersson, n.d.; THL, 2020e; FNAE, 2020f). However, a single teacher had kept precise learning diary and told that 40% of daily time in school was used for handwashing (Teacher NN2, private opinion, [Tweets], May 29). Operational level took the hygienic instructions seriously.

Regardless of different approaches, socio-educational policy in Finland faced similar challenges as Sweden. Official information was contradictory, hesitating – and in the case of Finnish Institute of Health and Welfare – also late and restricted, as well as misleading. Once the school closure took place, a “safety or risky” debate started in social media, requesting – but not really receiving – more argumentised information from the authorities. Moreover, official statements hadn’t been fully convincing due to previous and repeated loopholes in information (Vesanto, 2020; THL, 2020a, 2020b, 2020c, 2020e; Helsingin Sanomat, 2020b). First, there was a respirator scandal in Emergency Supply Center, which violated the credibility of responsible authorities in the Ministry of Social Affairs and Health. Second, there were visible and audible disagreements in central crisis administration. The CEO of Finnish Institute of Health and Welfare suggested suppression, and community masks, which were immediately rejected by the same Ministry (Yleisradio, 2020a; Ministry of Social Affairs and Health, 2020). In sum, administrative reliability and transparency launched questions and investigation requests (Parliamentary Ombudsman, 2020; Helsingin Sanomat, 2020). When foreign scientific media and experts told about unknown transmission roles of children, in addition to related emerging sicknesses, Finnish Health authorities told it to be safe to go to school. In the middle of contradictory information, FNAE and the Ministry mostly tried to have more instructive roles than their mandates allowed (FGovt, 2020c; Huoltovarmuuskeskus, 2020; Turunen, 2020; Vogel & Cousins-Frankel, 2020; THL, 2020a, 2020c, 2020d, 2020g;

Helsingin Sanomat, 2020). A numerous group of worried guardians revealed another trend, by collecting a public appeal against the school reopening policy in early May. It was delivered to the Minister of Education. The published appeal had updated, international pandemic research references with more than 11,100 signatures in eight days but no effect on decisions (Guardians NN (11,169 people), and private opinions, [Tweets], May 13). National single-mindedness had got fragile with information loopholes. Apart from those, the operational education level maintained collaboration with all guardians.

CONCLUSIONS AND SUGGESTIONS

Socio-educational Covid-19 policies in Sweden and Finland had mutual trends. In terms of failures, the citizens' need for updated and argumentised information was underestimated. Another underestimation was the educational level of the 21st century guardians. The hermeneutic Data review revealed multidimensional abilities to combine the international Data beyond national releases and instructions. Worried guardians and citizens were able to act faster than responsible officials, who then blamed them. Consequently, third failure in both countries was to comprehend pandemic 'nationally' with national resources and solutions. By following an outdated comprehension of educational dynamics, Swedish authorities started to lose social trust, in addition to accountable management of epidemic situation. No reliable Data from infected/exposed pupils or citizens were available by 6th of June. Finnish administration had Constitutional approach, prompt emergency response and effective local administration, which together maintained accountability as a main trend. Administration notwithstanding, educators, guardians and pupils did much better than officials expected.

Regarding success, Sweden kept society and compulsory schools open. However, social development arose uncertainty along with teachers' professional attraction, which went downhill. For Finns, the biggest success was curricular, social and operational. Regardless of confusions, the nuclear schoolwork – meaningful learning - wasn't interrupted. Basic education pupils and teachers had a sound intrinsic motivation. The University of Turku accomplished a vital survey on remote learning and well-being. Guardians supported schools, irrespective of critics on information loopholes. Finnish education broke the pandemic research comprehension of schools as contact teaching and daycare facilities. Operational level proved that curriculum worked, utilizing digital competencies and remote, social-distanced work. A remote learning period with the updated data collection was a convincing performance. Education providers' flexibility supported trust and assessment. Constitution mattered in maintaining the social trust, as well.

In conclusion, pandemic policies in the 21st century Nordic countries should not rely on Anglo-Saxon medical reviews' recommendations. Experiences from March-May 2020 offered another evidence. However, further studies will be needed on remote learning, targeting its relatedness. Meanwhile, the national schools don't need to be "national". Teaching English as a foreign language (TEFL), for

example, could reach billions of pupils beyond boundaries via a single lecture. Instead of seating medical doctors into educational organizations as was proposed in The Lancet (2020), the Nordic country cases suggested the opposite. Behavioral scientists should attend to epidemiologic boards and organs. Especially they would be needed, when the future matters. It would improve the mutual understanding in exceptional circumstances.

REFERENCES

- Aivelo, T. (2020). Koronaepidemia siirtyy uuteen vaiheeseen [Corona virus epidemic proceeds to a new phase]. *Tiede-lehti*. February 24, 2020, from <https://rebrand.ly/j4yiiig9>
- Albrecht, J. R., & Kavabenick, S.A. (2019). Relevant education in a changing world: Expanding value for the motivation sciences. In E. N. Gonida, & M. S. Lemos. (Eds.) *Motivation in education at a time of global change: A theory, research, and implications for practice, volume 20* (pp. 33-52). Bingley, UK: CPI Group.
- Andersson, H.L. (2020, May 27). Sverige har haft flest döda - två veckor in rad [Sweden has had highest death rate - two weeks in a row]. *Expressen*. <https://rb.gy/g2nzw>
- Andersson, L. [@liandersson] (n.d.). *Tweets* [lianderson]. Retrieved from March 17 to June 5, 2020.
- Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic? *The Lancet*, 395 (10228), 931-934. [https://doi.org/10.1016/s0140-6736\(20\)30567-5](https://doi.org/10.1016/s0140-6736(20)30567-5)
- Atjonen, P., Laivamaa, H., Levonen, A., Orell, S., Saari, M., Sulonen, K., Tamm, M., Kamppi, P., Rumpu, N., Hietala, R., & Immonen, J. (2019). "että tietää, missä on menossa". *Oppimisen ja osaamisen arviointi perusopetuksessa ja lukiokoulutuksessa*. ["So that we know where we stand" Assessment of learning and competence in basic education and general upper secondary education.]. KARVI 7. [Finnish Education Evaluation Centre (FINEEC) 7]. https://karvi.fi/app/uploads/2019/04/KARVI_0719.pdf
- Aluehallintovirasto. (AVI). (2020). Aluehallintovirastot tekivät tartuntalain mukaiset jatkopäätökset yleisötalaisyksien kieltämisestä ja oppilaitosten sulkemisesta [Regional State Administrative Agencies made decisions by denying public events and institutional closures]. Retrieved April 9, 2020, from <https://www.avi.fi/web/avi/-/aluehallintovirastot-tekivat-tartuntatautilain-mukaiset-jatkopaatokset-yleisotilaisyksien-kieltamisesta-ja-oppilaitosten-tilojen-sulkemisesta>
- Basic Education Act 628/1998 (Amendments up to 1136/2010). <https://rebrand.ly/internetservice3990c>
- Borman, G. D., Grigg, J., & Hanselman, P. (2016). An effort to close achievement gaps at scale through self-affirmation. *Educational Evaluation and Policy Analysis*, 38(1), 21-42. <https://doi.org/10.3102/0162373715581709>
- Bruns, D. P., Kraguljac, N. V., & Bruns, T. R. (2020). COVID-19: Facts, cultural considerations, and risk of stigmatization. *Journal of Transcultural Nursing*, 31(4), 326-332. <https://doi.org/10.1177/1043659620917724>

- Burgess, A., & Horii, M. (2012), Risk, ritual and health responsabilisation: Japan's 'safety blanket' of surgical face mask-wearing. *Sociology of Health & Illness*, 34(8), 1184-1198. <https://doi.org/10.1111/j.1467-9566.2012.01466.x>
- Burton, K.D., Lydon, J. E., D'Alessandro, D.U., & Koestner, R. (2006). The differential effects of intrinsic and identified motivation on well-being and performance: Prospective, experimental, and implicit approaches to self-determination theory. *Journal of Personality and Social Psychology*, 91, 750-62. <https://doi.org/10.1037/0022-3514.91.4.750>
- Butler, R. (2019). Gender, Motivation and Society: New and continuing challenges. In E. N. Gonida, & M. S. Lemos. (Eds.). *Motivation in education at a time of global change: Theory, research, and implications for practice, volume 20* (pp. 129-141). Bingley, UK: CPI Group.
- Burgoyne, J. (2020, May 29). Measurement of learning: A different approach to improvement. *Centre for Public Impact*. <https://rb.gy/ug26hy>
- Cameron, I., & Jonsson-Cornell, A. (2019, May 7). Sweden and COVID 19: A constitutional perspective. *Verfassungsblog on Matters Constitutional*. <https://verfassungsblog.de/sweden-and-covid-19-a-constitutional-perspective/>
- Cauchemez S., Ferguson N., Wachtel C., Tegnell, A., Saour G., Duncan, B., & Nicoll, A. (2009). Closure of schools during an influenza pandemic. *The Lancet Infectious Diseases*, 9(8), 473-481. [https://doi.org/10.1016/S1473-3099\(09\)70176-8](https://doi.org/10.1016/S1473-3099(09)70176-8)
- Cheng, V.C., Wong, S.C., Chuang, V.W., So, S.Y., Chen, J.H., Sridhar, S., To, K.K., Chan, J.F., Hung, I.F., Ho, P.L., & Yuen, K.Y. (in press). The role of community-wide wearing of face mask for control of coronavirus disease 2019 (COVID-19) epidemic due to SARS-CoV-2. *Journal of Infection*. <https://doi.org/10.1016/j.jinf.2020.04.024>
- Cohen, M., & Corey, L. (2020). Combination prevention for COVID-19. *Science*, 368, (6491), 551. <https://doi.org/10.1126/science.abc5798>
- Colao, A., Pulimeno, M., Colazzo, S., Miani, A., & Giannini, S. (in press). Rethinking the role of the school after COVID-19. *The Lancet Public Health*. [https://doi.org/10.1016/S2468-2667\(20\)30124-9](https://doi.org/10.1016/S2468-2667(20)30124-9)
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Dede, C. (2010). Comparing frameworks for 21st century skills. In J. Bellanca, & R. Brandt (Eds.), *21st Century Skills: Rethinking how students learn* (pp. 51-75). Bloomington, IN: Solution Tree Press.
- Emergency Powers Act of Finland (1080/1991). <https://rebrand.ly/internetservice076c2>
- EURYDICE. (2018a, August 7). *Sweden: Administration and governance at central and/or regional level*. https://eacea.ec.europa.eu/national-policies/eurydice/content/administration-and-governance-central-and-or-regional-level-80_en
- EURYDICE (2018b, January 24). *Finland: Organisation and governance*. https://eacea.ec.europa.eu/national-policies/eurydice/finland/organisation-and-governance_en
- Fall, T. (2020, May 28). Professor: Tryck ner covid-19 med aktiv smittspårning. [Professor: Beat the covid-19 with act]. *Dagens Nyheter*. <https://www.dn.se/nyheter/sverige/professorn-tryck-ner-covid-19-med-aktiv-smittsparning/>
- Ferguson, N., Laydon, D., Nedjati-Gilani, G., Imai, N., Ainslie, K., Baguelin, M.,... Ghani, A. (2020). *Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand*. Imperial College London. <https://doi.org/10.25561/77482>.
- Finnish Border Guard (RAJAa). (n.d.). *Guidelines for Border traffic*. Retrieved May 7, 2020, from https://www.raja.fi/current_issues/guidelines_for_border_traffic/13_5
- Finnish Border Guard (RAJAb) (n.d.). *Instructions for border traffic issued by the Border Guard in accordance with the Government decision of 7 May 2020*. Retrieved May 13, 2020, from https://www.raja.fi/current_issues/guidelines_for_border_traffic
- Finnish Government. (FGovt). (2020a, March 13). *Prohibiting public events in Finland: Ministry of Social Affairs and Health sent guidelines to the regional state administrative agencies*. Retrieved March 14, 2020, from https://valtioneuvosto.fi/en/article/-/asset_publisher/1271139/yleisotilaisuuksien-kieltaminen-stm-on-lahettanyt-toimenpideohjeet-aluehallintovirastoille
- Finnish Government. (2020b, April 7). *Government decided on tightening restrictions on border traffic along the border with Sweden and Norway and on steps to secure medical care in Åland*. Retrieved May 7, 2020 from, https://valtioneuvosto.fi/en/article/-/asset_publisher/10616/hallitus-linjasi-rajaliikenteen-tiukennuksista-ruotsin-ja-norjan-vastaisella-rajalla-ahvenanmaan-sairaanhoito-turvataan
- Finnish Government. (2020c). *Ohje koulutuksen järjestäjille*. [Instruction for education providers]. Retrieved May 4, 2020, from <https://vnk.fi/documents/10616/20764066/Ohje+koulutuksen+j%C3%A4rjest%C3%A4jille+040520.pdf>
- Finnish National Agency of Education (FNAE). (2014). *Perusopetuksen opetussuunnitelman perusteet 2014* [Basic Education Curriculum of Finland 2014]. https://www.oph.fi/sites/default/files/documents/perusopetuksen_opetussuunnitelman_perusteet_2014.docx
- Finnish National Agency of Education. (2020a, March 25). *School Premises in Finland closed to prevent the spread of coronavirus*. Retrieved May 11, 2020, from <https://www.oph.fi/en/news/2020/school-premises-finland-closed-prevent-spread-coronavirus>
- Finnish National Agency of Education. (2020b, May 8). *COVID-related restrictions on education gradually lifted in Finland from 14.5.2020*. Retrieved May 14, 2020, from <https://www.oph.fi/en/news/2020/covid-related-restrictions-education-gradually-lifted-finland-1452020>
- Finnish National Agency of Education. (2020c). *Pandemia ja kriisityö webinaari-sarja*. [Webinar set for pandemic

- and crisis management]. Retrieved May 18, 2020, from <https://www.oph.fi/fi/tapahtumat/2020/pandemia-ja-kriisityo-webinaarisarja>
- Finnish National Agency of Education. (2020d, June 1). *Opetushallituksen kysely tarjoaa kattavan kuvan oppimateriaalilanteesta juuri ennen etäopetukseen siirtymistä* [Inquiry of learning materials in late 2019 gave a sound perspective for learning materials right before remote teaching. News 1.6.2020]. Retrieved June 1, 2020, from <https://www.oph.fi/fi/uutiset/2020/opetushallituksen-kysely-tarjoaa-kattavan-kuvan-oppimateriaalilanteesta-juuri-ennen>
- Finnish National Agency of Education. (2020e, April 3). *Oppilaan arviointi perusopetuksessa poikkeusolojen aikana* [Student assessment under exceptional circumstances]. Retrieved May 25, 2020, from <https://www.oph.fi/fi/oppilaan-arviointi-perusopetuksessa-poikkeusolojen-aikana>
- Finnish National Agency of Education. (2020f, May 15). *Oppivelvollisuus ja poissaolot 14.5.2020 alkaen* [Compulsory education and absences 14.5.2020 onwards]. Retrieved 15.5.2020 from, <https://www.oph.fi/fi/oppivelvollisuus-ja-poissaolot-perusopetuksesta-1452020-alkaen>
- Finnish National Agency of Education. (2020g, May 20). *Lähiopetukseen on palattu – huomioita perusopetuksen ja varhaiskasvatuksen järjestäjille*. [A return to contact teaching – notes for basic education and early childhood education providers]. Retrieved June 1, 2020, from <https://www.oph.fi/fi/uutiset/2020/lahiopetukseen-palattu-huomioita-perusopetuksen-ja-varhaiskasvatuksen-jarjestajille>
- Finnish National Agency of Education. (n.d.). *Lähiopetukseen palaaminen perusopetuksessa* [Returning to contact teaching in basic education]. Retrieved May 13, 2020, from <https://www.oph.fi/fi/koulutus-ja-tutkinnot/145-alkaen-lahiopetukseen-palaaminen-perusopetuksessa>
- Folkhälsomyndigheten [National Health Officials of Sweden] (FHM). (2020a). *Information till förskola, grundskola och gymnasier om covid-19*. [Covid-19 information for schools and preschools]. Retrieved May 17, 2020, from <https://www.folkhalsomyndigheten.se/smittskydd-beredskap/utbrott/aktuella-utbrott/covid-19/verksamheter/information-till-skola-och-forskola-om-den-nya-sjukdomen-covid-19/>
- Folkhälsomyndigheten [National Health Officials of Sweden]. (2020b, May 22). *Statistik, covid-19 veckorapporter, vecka 18*. [Statistics, Covid-19 weekly reports, week 18]. Retrieved May 28, 2020, from <https://www.folkhalsomyndigheten.se/folkhalsorapportering-statistik/statistik-a-o/sjukdomsstatistik/covid-19-veckorapporter/>
- Folkhälsomyndigheten [National Health Officials of Sweden]. (2020c, May 13). *Folkhälsomyndigheten: "Liten andel som är asymptomatisk"*. [A minor part remains asymptomatic]. Retrieved May 26, 2020, from <https://www.svt.se/nyheter/folkhalsomyndigheten-liten-andel-som-ar-asymptomatisk>
- Gayle, V., & Lambert, P. (2018). *What is quantitative longitudinal data analysis?* New York, NY: Bloomington.
- Cohen, N. (2020, May 23). Sweden's Covid-19 policy model for right. It's also a deadly folly. *The Guardian*. <https://www.theguardian.com/world/commentisfree/2020/may/23/sweden-covid-19-policy-model-for-right-also-a-deadly-folly>
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York, NY: Basic books.
- Goble, E., & Yin, Y. (2014). Introduction to hermeneutical phenomenology: A research methodology best learned by doing it. *IQM: The Qualitative Research Blog*. <https://iiqm.wordpress.com/2014/10/16/introduction-to-hermeneutic-phenomenology-a-research-methodology-best-learned-by-doing-it/>
- Gordon, D. (2006). The concept of the hidden curriculum. *Journal of Philosophy of Education*, 16, 187-198. <https://doi.org/10.1111/j.1467-9752.1982.tb00611.x>
- Gritti, M. (2020). Stories of the 1918 influenza pandemic and its legacy. *The Lancet Infectious Disease*, 20(1), 36-37. [https://doi.org/10.1016/S1473-3099\(19\)30710-8](https://doi.org/10.1016/S1473-3099(19)30710-8)
- Grolnick, W. S., Kurowski, C. O., & Gurland, S. T. (1999). Family processes and the development of children's self-regulation. *Educational Psychologist*, 34(1), 3-14. https://selfdeterminationtheory.org/SDT/documents/1999_GrolnickKurowskiGurland_EP.pdf
- Gråsten, H. (2020, March 4). THL:n osastojohtaja hisuttelusyytöksistä: Emme voi tietää varmaksi, ettei Suomessa ole koronavirus-epidemiaa. [THL Department leader about accusations: We cannot know for certain, whether there is, or isn't corona epidemic in Finland]. *Satakunnan Kansa*. <https://www.satakunnankansa.fi/a/6c5b1fb0-7f5c-4ed1-b2cd-985050bb8359>
- Göteborg's Stad (2020). *Om grundskoleförvaldning ock coronaviruset*. [About basic education school administration and corona virus]. Retrieved May 16, 2020, from https://goteborg.se/wps/portal/press-och-media/aktuelltarkivet/aktuellt/18b9930e-d34c-4d6a-817a-c1b8e74e5f9f!/ut/p/z1/pZFDt4MwFIZ_ixdcQk9bKK13Y-MyyOQRHUMaNKax8JHyFMU389XYaEzVmLnqSc5I27_Oci4MylKKsl09Njedm6GWr39uMPRI7riP-PQjvo2tYrm9sEm8oWcQEPbwFEvwRCCMGy1VEktvAo4xjIP2Dx7FzHg9fygN_Q3wKsAjJX_jPpvP4E-4HstH712wJ9ATIFV0GFslHOtdn05YBSzHMhK-ChzR-3CtHdMmhy70ixwzpVrK6cU5dHd5J31XHQW-WAQcbrsEKGnUCHso9nrc8q1eVKlmtRkHSZ98n-qex_2IAQZ0smmtahiqVlnF0L1_6HnQPRrAOTPgJ-0097GeUfqPR2CW60pd1GczO1rt4BdbwkWg!/dz/d5/L2dBISEvZ0FBIS9nQSEh/
- Hakalehto, S., & Rautiainen, P. (2020). *Koulujen avaamisesta*. [About the opening of schools]. *Perustuslakiblogi*. <https://perustuslakiblogi.wordpress.com/2020/05/08/suvianna-hakalehto-pauli-rautiainen-koulujen-avaamisesta/>
- Halder, N., Kelso, J. K., & Milne, G. J. (2010). Developing guidelines for school closure interventions to be used during a future influenza pandemic. *BMC Infectious Diseases*, 10, 1-14. <https://doi.org/10.1186/1471-2334-10-221>
- Hellberg, L. (2020, June 2). Sveriges PISA framgång bygger på falska siffror [Swedish PISA success built of falsified

- figures]. *Expressen*. <https://www.expressen.se/nyheter/qs/sveriges-pisa-framgang-bygger-pa-falska-siffror/>
- Hecht, C., A., Prininski, S., J., & Harackiewicz, J. M. (2019). Understanding long-term effects of motivation interventions in a changing world. In E. N. Gonida, & M. S. Lemos (Eds.) *Motivation in education at a time of global change: A Theory, research, and implications for practice* (83-92). Bingley, UK: CPI Group.
- Heidegger, M. (1993). What calls for thinking. In M. Heidegger. *Basic writings* (370-391). London, UK: Routledge.
- Hellberg, L. (2020, June 2). Sveriges PISA framgång bygger på falska siffror [Swedish PISA success built of falsified figures]. *Expressen*. <https://www.expressen.se/nyheter/qs/sveriges-pisa-framgang-bygger-pa-falska-/>
- Helsingin Sanomat (2020, March 16-June 3). *Lukijan mielipide* [Readers' opinion(s)]. Retrieved March 16 – 3 June 3, from <https://www.hs.fi/mielipide/>
- Huoltovarmuuskeskus [National Emergency Supply Center]. (2020, April 14). *Report completed on the national emergency supply agency activities regarding the procurement of protective equipment*. Retrieved June 3, 2020, from <https://www.nesa.fi/report-completed-on-the-national-emergency-supply-agencys-activities-regarding-the-procurement-of-protective-equipment/siffror>
- John Hopkins University (JHU) (2020). *Coronavirus research center*. Retrieved June 1, 2020, from <https://coronavirus.jhu.edu/testing/international-comparison>
- Jällhage, L. (2020, May 6). Nu öppnar Kågesskolan igen efter coronadödfallet [Now opens Kågel School again after a corona death]. *Läraren*. <https://www.lararen.se/nyheter/coronaviruset/efter-larardoden--nu-oppnar-kag-eskolan-igen>
- Jällhage, N., & Svahn, N. (2020, May 19). MSB: Lärare ska inte prioriteras [teachers should not have priority (in testing)]. *Läraren*. <https://www.lararen.se/nyheter/coronaviruset/yrkena-som-ska-provtas---hela-listan>
- Kaplan, A., Garner, J. K., & Brock, B. (2019). Identity and motivation in a changing world. A complex dynamic systems perspective. In E. N. Gonida, & M. S. Lemos (Eds.) *Motivation in education at a time of global change: Theory, Research, and Implications for Practice* (pp. 101-122). Bingley, UK: CPI Group.
- Kassnert, J. (2020, March 6). Experten: "Ingen anledning till att hålla skolorna stängda" [Expert: "no reason to keep the school closed"]. *Mitti i Stockholm*. <https://mitti.se/nyheter/stangningen-skolor-statsepidemiologen/>
- Khoon Lee, G.K., Hun, T., & Lees, M. (2011) Temporal factors in school closure policy for mitigating the spread of influenza. *Journal of Public Health Policy* 32, 180–197. <https://doi.org/10.1057/jphp.2011.1>
- Krisinformation.se [Emergency information from Swedish authorities] (n.d.). Public Health Agency recommendations. Retrieved May 25, 2020, from <https://www.krisinformation.se/en>
- Lamb, S., Maire, Q., & Doecke, E. (2017). *Key skills for the 21st century: An evidence-based review*. Melbourne, Australia: Victoria University.
- Langdridge, D. (2007). *Phenomenological psychology: Theory, research and method*. Harlow, UK: Pearson Education Ltd.
- Lee, W. O & Tan, J. P. L. (2018). The new roles for twenty-first century teachers: Facilitator, knowledge broker, and pedagogical weaver. In H. Niemi, A. Toom, A. Kallioniemi & J. Lavonen (Eds.) *The Teachers' Role in the Changing Globalizing World. Resources and Challenges Related to the Professional Work of Teaching* (pp. 11-32). Leiden, the Netherlands: Printforce.
- Liiten, M. (2020, May 14). Näin etäkoulu sujui: Kymmenentuhannet suomalaislapset vastasivat kyselyyn, grafiikat näyttävät ilot ja murheet. [This was how remote schooling worked: Tens of thousands of Finnish children replied, graphics indicated]. *Helsingin Sanomat*. <https://www.hs.fi/politiikka/art-2000006506771.html>
- Lim, T. K. (2006). Gifted students in a community of inquiry. *Journal of Educational Policy*, 3, 67-80.
- Lind, A.-S., & Namli, E. (2017). Mänskliga rättigheter i offentlig förvaltning. In A.S. Lind & E. Namli (Eds), *Mänskliga rättigheter i det offentliga Sverige*. [Human Rights in official Sweden] (pp.15–20). <http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-322859>
- Lindeberg, R. (2020, June 3). Man behind Sweden's virus strategy says he got some things wrong. *Bloomberg*. <https://www.bloomberg.com/news/articles/2020-06-03/man-behind-sweden-s-virus-strategy-says-he-got-some-things-wrong>
- Lipsitch, M., Riley, S., Cauchemez, S., Ghani, A.C., & Ferguson, N. M. (2009). Managing and reducing uncertainty in an emerging influenza pandemic. *New England Journal of Medicine*. DOI: 10.1056/NEJMp0904380
- Lo, J. Y., Tsang, T. H., Leung, Y. H., Yeung, E. Y., Wu, T., & Lim, W. W. (2005). Respiratory infections during SARS outbreak, Hong Kong, 2003. *Emerging infectious diseases*, 11(11), 1738–1741. <https://doi.org/10.3201/eid1111.050729>
- Loima, J. (2019). Encouraging enough? A case study on parental feedback on new assessment in Finnish basic education. *International Journal of Education and Literacy Studies*, 7(2), 189-196. <http://dx.doi.org/10.7575/aiac.ijels.v7n2p.189>
- Loima, J. (2020). Innovation, Recreation, Interpretation? A Case Study on the Origins and Implementation of Transversal Core Competencies in Finnish Basic Education Core Curriculum Reform 2016. *International Journal of Education and Literacy Studies*, 8(1), 180-189. <http://dx.doi.org/10.7575/aiac.ijels.v8n.1p.180>
- Luukkainen, O. [@oLLiLuukkainen]. (n.d.). *Tweets* [oLLiLuukkainen]. Retrieved from May 8 - 29, 2020.
- Läraren (2020, May 19). Riskgruppersättning lanseras snart [Risk group estimation will be produced soon]. *Läraren*. <https://www.lararen.se/nyheter/coronaviruset/bekraftat-riskgruppersattning-lanseras-snart>
- Magnusson, A.H. (2020, May 29). Vi är tusentals som aldrig tycks att bli friska igen [There are dozens of us, who will never be healthy again – help us]. *Expressen*. <https://www.expressen.se/debatt/vi-ar-tusentals-som-aldrig-tycks-bli-friska-hjalp-oss/>

- Miller, J. (1996). *The holistic curriculum*. Toronto, Canada: Toronto University Press.
- Ministry of Education and Culture of Finland (MinEdu). (2020a). *Government, in cooperation with the President of republic declares a state of emergency in Finland due to coronavirus outbreak*. Retrieved March 16, 2020, from https://minedu.fi/en/article/-/asset_publisher/10616/hallitus-totesi-suomen-olevan-poikkeusoloissa-koronavirustilanteen-vuoksi
- Ministry of Education and Culture of Finland. (2020b). *Government policy recommendations for providers of early childhood education and care, pre-primary education, primary and lower secondary education, general upper secondary education, vocational education, higher education, liberal education and basic art education in order to slow down the spread of coronavirus infections*. Retrieved March 16, 2020, from https://minedu.fi/en/article/-/asset_publisher/valtioneuvoston-linjauks-suositukset-varhaiskasvatuksen-esiopetuksen-perusopetuksen-lukio-ja-ammattillisen-koulutuksen-korkeakoulutuksen-vapaan-sivist
- Ministry of Education and Culture of Finland. (2020c). *Government issues resolution adapting yesterday's decision to lift restrictions from early childhood care and basic education*. Retrieved April 30, 2020, from https://minedu.fi/en/article/-/asset_publisher/10616/valtioneuvosto-vahvisti-periaatepaatoksella-eilisen-linjauksen-varhaiskasvatuksen-ja-perusopetuksen-rajoitteiden-purkamisesta
- Ministry of Education and Culture of Finland. (2020d). *Contact teaching commences on Thursday 14th May*. Retrieved May 4, 2020, from https://minedu.fi/en/article/-/asset_publisher/lahiovetus-jatkuu-torstaina-14-toukokuuta
- Ministry of Education and Culture of Finland. (2020e). *Instructions from the Finnish Institute for Health and Welfare and the Ministry of Education and Culture to providers of education and early childhood education and care during the COVID-19 epidemic*. Retrieved May 9, 2020, from <https://www.oph.fi/en/education-and-qualifications/education-finland-and-coronavirus>
- Ministry of Education and Culture. (2020f). *Kuntakysely: koko maassa 88 prosenttia oppilaista osallistui opetukseen koulujen avaaututtua, maakuntien välillä eroja*. [Municipality inquiry covered the country. 88 percent of pupils participated to close teaching in schools' reopening] Retrieved June 1, 2020, from https://minedu.fi/artikkeli/-/asset_publisher/kuntakysely-koko-maassa-88-prosenttia-oppilaista-osallistui-opetukseen-koulujen-avaaututtua-maakuntien-valilla-eroja
- Ministry of Education and Culture. (2020g). *Kuntakysely: oppilashuollon palvelujen kysyntä on vähentynyt poikkeusolojen aikana*. [Municipality inquiry: Requests for student welfare services have declined during the state of emergency]. Retrieved June 2, 2020, from https://minedu.fi/artikkeli/-/asset_publisher/kuntakysely-oppilashuollon-palveluiden-tarjoaminen-on-vahentynyt-poikkeusolojen-aikana
- Ministry of Education and Research of Sweden (MinER). (2020a). *The Governments work in the area of education in response to the coronavirus*. Retrieved March 30, 2020, from <https://www.government.se/articles/2020/03/the-governments-work-in-the-area-of-education-in-response-to-the-coronavirus/>
- Ministry of Health and Social Services of Sweden (MinHS). (2020a). *Speech by Minister Lena Hallengren at WHO briefing 23.4.2020*. Retrieved May 4, 2020, from <https://www.government.se/speeches/2020/04/speech-by-minister-for-health-and-social-affairs-lena-hallengren-at-who-briefing-23-april/>
- Ministry of Health and Social Services of Sweden. (2020b). *Decisions and guidelines of health and social affairs policy areas to limit the spread of the covid-19*. Retrieved April 9, 2020, from <https://www.government.se/articles/2020/04/s-decisions-and-guidelines-in-the-ministry-of-health-and-social-affairs-policy-areas-to-limit-the-spread-of-the-covid-19-virusny-sida/>
- Ministry of Social Affairs and Health (2020). *Tiedotteet* [Media releases]. Retrieved June 3, 2020, from <https://stm.fi/tiedotteet>
- Mossige-Norheim, T. (2020, May 30). Sveriges vändring: har ändrat strategi [Sweden's turn: strategy have changed]. *Expressen*. <https://www.expressen.se/nyheter/sveriges-vandning-har-andrat-strategi/>
- Myndigheten för samhällsskydd och beredskap [Swedish Contingency officials] (MSB). (2020). *Coronabarometer (April-May)*. Retrieved May 25, 2020, from <https://www.msb.se/sv/sok/?q=coronabarometer>
- Nafisah, B.S., Alamery, A. H., Aminah, A. N., Bakhtah, A. B., & Brazanji, N.A. (2018). School closure during novel influenza: A systematic review. *Journal of Infections and Public Health*, 11(5), 657–661. <https://doi.org/10.1016/j.jiph.2018.01.003>
- Napier, A., Ancarno, C., Butler, B., Calabrese, J., Chatter, A., Chatterjee, H.,... Woolf, K. (2014). Culture and health. *The Lancet*, 384(9954), 1607-1639. [https://doi.org/10.1016/S0140-6736\(14\)61603-2](https://doi.org/10.1016/S0140-6736(14)61603-2)
- Niemi, H., Lavonen, J., Kalliomäki, A., & Toom, A. (2018). The role of teachers in the Finnish educational system. In H. Niemi, A. Toom, A. Kallioniemi, & J. Lavonen. (Eds). *The teachers' role in the changing globalizing world: Resources and challenges related to the professional work of teaching* (pp. 48-55). Leiden, the Netherlands: Printforce.
- Neuding, P. (2020). Dödsfallen är inte längre tragedi men statistik [Death rates are no more a tragedy but statistics]. *Dagens samhälle. Opinionstext*. Retrieved May 26, 2020, from <https://www.dagensamhalle.se/kronika/dodsfallen-ar-inte-ar-inte-langre-tragedi-utan-statistik-32665>
- Non-Discrimination Ombudsman (NDO). (2020). *Yhdenvertainen lähi- ja etäopetus poikkeustilassa* [Non-discriminating close and remote teaching in state of emergency]. Retrieved June 1, 2020, from <https://www.syrjinta.fi/-/yhdenvertainen-lahi-ja-etaopetusopetus-poikkeustilassa>

- Olsson, E. (2020, April 24). Flera faktorer bakom coronasmitta is Skellefteåskola [Several reasons for corona infections in Skellefteå School]. *Läraren*. <https://www.lararen.se/nyheter/coronaviruset/flera-faktorer-bakom-coronasmitta-pa-skellefteaskola>
- Opettajien ammattijärjestö [Teachers' trade union] (OAJ) (2020). *OAJ:lta ehdotus perusopetukseen: näin oppilaat voitaisiin tavoittaa avaamalla kouluja* [OAJ suggests: this way pupils could be reached without opening of the schools]. <https://www.oaj.fi/ajankohtaista/nakemyksemme/2020/oajlta-ehdotus-perusopetukseen-nain-oppilaat-voitaisiin-tavoittaa-avaamalla-kouluja-koronavirus/>
- Orange, R. (2020, May 20). Sweden becomes the country of highest coronavirus death rate. *The Telegraph*. <https://www.telegraph.co.uk/news/2020/05/20/sweden-becomes-country-highest-coronavirus-death-rate-per-capita/>
- Parliamentary Ombudsman (2020). *Oikeusasiamiehelle paljon poikkeusoloihin liittyviä kanteluita* [Parliamentary Ombudsman received a large number of complaints related to the state of emergency]. Retrieved June 4, 2020, from <https://www.oikeusasiames.fi/en/web/guest/-/oikeusasiamehelle-paljon-poikkeusoloihin-liittyvia-kanteluita>
- Pearlman, B. (2010). Designing new learning environments to support 21st century skills. In J. Bellanca & R. Brandt (eds.) *21st century skills: Rethinking how students learn* (118-127). Bloomington, IN: Solution Tree.
- Peim, N. (2018). *Thinking in educational research. Applying philosophy and theory*. London, UK: Bloomsbury.
- Programme of International Student Assessment (PISA). (2018). *PISA 2018 Results*. <https://www.oecd.org/pisa/publications/pisa-2018-results.htm>
- Pyhältö, K., Pietarinen, J., & Soini, T. (2014). Comprehensive schoolteachers' professional agency in large-scale educational change. *Journal of Educational Change* 15(3), 303-325.
- Rautiainen, P. (2020). Katsaus valmiuslain seitsemänteen toteutusviikkoon. [Review on the 7th week of emergency powers act implementation (in Finland)]. *Perustuslakiblogi*. Retrieved May 3, 2020, from <https://perustuslakiblogi.wordpress.com/2020/05/04/pauli-rautiainen-katsaus-valmiuslain-seitsemanteen-soveltamisviikkoon/>
- Regeringskansliet (RegK). (2020a). *Government of Sweden. Government policy, work and introduction to the new corona virus strategy*. Retrieved April 7, 2020 from, <https://www.regeringen.se/regeringens-politik/regeringens-arbete-med-anledning-av-nya-coronaviruset/strategi-med-anledning-av-det-nya-coronaviruset/>
- Regeringskansliet (RegK) (2020b). *Government Offices of Sweden. Government strategy in response of the Covid-19 pandemic*. Retrieved May 6, 2020, from <https://www.government.se/articles/2020/04/strategy-in-response-to-the-covid-19-pandemic/>
- Reuters. (2020, June 4). Confidence in Swedish Authorities Dips Amid Mounting Pandemic Death Toll, Polls Show. *New York Times*. <https://www.nytimes.com/reuters/2020/06/04/world/europe/04reuters-health-coronavirus-sweden-confidence.html>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78. DOI: 10.1037//0003-066x.55.1.68
- Salminen, M. [@mika-salminen]. (n.d.). *Tweets* [mika-salminen]. Retrieved from February 18 - June 4, 2020.
- Sahlberg, P. (2015). *Finnish Lessons 2.0: What can the world learn from educational change in Finland? (Second Edition)*. New York, NY: Teachers College Press.
- Sandberg, M., & Aschberg, R. (2020, May 26). Anders Tegnell had tagit emot dödshot [Anders Tegnell has received death threats]. *Aftonbladet*. <https://www.aftonbladet.se/nyheter/a/pLzmg6/anders-tegnell-har-tagit-emot-dodshot>
- Sandberg, J.A. (2020, May 26). Lärarförsvårningen är det svåraste [The availability of teachers is the most difficult (obstacle)]. *Läraren*. <https://www.lararen.se/nyheter/forskning/lararforsorjningen-ar-det-svaraste>
- Scheinin, M. (2020, April 28). *Onko perustuslaillinen oikeus lähteä maasta unohdettu?* [Has Constitutional Finnish citizen's right to leave the country been forgotten?]. *Perustuslakiblogi*. <https://perustuslakiblogi.wordpress.com/2020/04/28/martin-scheinin-onko-suomen-kansalaisen-perusoikeus-lahtea-maasta-unohdettu/>
- Schulman, A. (2020, May 23). Det här är en stad som slutat följa Tegnells presskonferenser [This is a city which stopped following Tegnell's media conferences]. *Expressen*. <https://www.expressen.se/kronikor/alex-schulman/det-har-ar-en-stad-som-slutat-folja-tegnells-presskonferenser/>
- Sjögren, A. (2020, April 5). Coronasmitta på skola. Föräldrar informeras inte [Corona infection at school. Guardians were not informed]. *Aftonbladet*. <https://www.aftonbladet.se/nyheter/a/dO1ORq/coronasmitta-pa-skola--foraldrar-informerades-inte>
- Skollagen (2010:800) [Education Act 2010:800 in Sweden]. http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/skollag-2010800_sfs-2010-800
- Skarborgs Allehända. (2020). *Stäng grundskolor nu* [Close the (basic education) schools now]. *Skarborgs Allehända*. Retrieved March 26, 2020, from <https://www.sla.se/2020/03/26/stang-grundskolorna-nu/>
- Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: The philosophy, the methodologies and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*, 48(3), 1291-1303. <https://doi.org/10.1007/s11135-013-9835-3>
- Sormunen, K., Juuti, K., & Lavonen, J. (2019). Maker-Centered Project-Based Learning in Inclusive Classes: Supporting Students' Active Participation with Teacher-Directed Reflective Discussions. *International Journal of Science and Math Education* 18, 691-712. <https://doi.org/10.1007/s10763-019-09998-9>
- Specialpedagogiska Skolmyndigheten (SPSM, n.d.). [Special Pedagogy School Office, Sweden]. Starting page. Visited 7.5.2020, <https://www.spsm.se/>

- Svenska TV (STV). (2020). *Korona kan ha funnits i Sverige redan in november*. [Corona may have been found in Sweden already in November 2019]. Retrieved May 5, 2020, from <https://www.svt.se/nyheter/inrikes/viruset-kan-ha-funnits-i-sverige-i-november>
- Smith, A. (1991). *National identity*. London, UK: Penguin books.
- Statistic Center of Finland (STAT). (2020). *Number of schools, students and education providers 2019*. http://www.stat.fi/til/kjarj/2019/kjarj_2019_2020-02-12_tie_001_en.html
- Sveriges Radio (SR). (2020a). *State epidemiologist: Corona virus does not pose a threat in Sweden*. Retrieved February 28, 2020, from <https://sverigesradio.se/sida/artikel.aspx?programid=2054&artikel=7394527>
- Sveriges Radio (SR). (2020b). *Antalet virussöddä är under-saktas*. [The numbers of virus mortality rate are underestimated. Radio interview of the state epidemiologist Tegnell]. Retrieved April 25, 2020, from <https://sverigesradio.se/sida/artikel.aspx?programid=83&artikel=7459277>
- Svenska TV (2020, May 4). *Lärare in Uppsala sjuk i covid-19 – collegor tystade* [Teacher in Uppsala sick from covid-19 – colleagues keep silent]. Retrieved April 6, 2020, from <https://www.svt.se/nyheter/lokalt/upsala/corona-pa-skolan-tystas-ner>
- Swedish National Agency of Education. (SNAE) (2018). *Curriculum for the compulsory schools, preschool class and school-age educare 2011 (Revised 2018)*. <https://www.skolverket.se/publikationsserier/styrdokument/2018/curriculum-for-the-compulsory-school-preschool-class-and-school-age-educare-revised-2018?id=3984>
- Swedish National Agency of Education. (2020a). *Instructions and answers for Corona virus and Covid. Regulations for schools and preschools*. Retrieved May 7, 2020, from <https://www.skolverket.se/regler-och-ansvar/coronaviruset-och-covid-19---regler-for-skolor-och-forskolor#Puffbehallareforsmallpuffar>
- Swedish National Agency of Education. (2020b). *Forskning. Elevers uppfattningar om prov har betydelse* [A study. Pupils' comprehension of (national) tests is meaningful]. Retrieved June 3, 2020, from <https://www.skolverket.se/skolutveckling/forskning-och-utvarderingar/forskning/elevers-uppfattningar-om-prov-har-betydelse>
- Taubenberger J. K. (2006). The origin and virulence of the 1918 "Spanish" influenza virus. *Proceedings of the American Philosophical Society*, 150(1), 86–112.
- Terveyden ja hyvinvoinnin laitos (THL). [Finnish Institute for Health and Welfare]. (2020a). *Instructions for those arriving from epidemic areas to Finland*. Retrieved February 5, 2020, from <https://thl.fi/fi/-/thl-on-paivittanyt-ohjeet-epidemia-alueelta-suomeen-saapuville>
- Terveyden ja hyvinvoinnin laitos. (2020b). *Coronavirus Situation and Prevention measures*. Retrieved February 24, 2020, from <https://thl.fi/en/web/thl-fi-en/-/coronavirus-situation-and-prevention-measures-to-be-reviewed-today->
- Terveyden ja hyvinvoinnin laitos. (2020c). *Childrens' coronavirus infections are usually mild*. Retrieved April 30, 2020, from <https://thl.fi/en/web/thl-fi-en/-/children-s-coronavirus-infections-are-usually-mild-no-serious-cases-reported-in-finland->
- Terveyden ja hyvinvoinnin laitos. (2020d). *The number of people with coronavirus infections may be dozens of times higher*. Retrieved May 5, 2020, from <https://thl.fi/en/web/thl-fi-en/-/number-of-people-with-coronavirus-infections-may-be-dozens-of-times-higher-than-the-number-of-confirmed-cases>
- Terveyden ja hyvinvoinnin laitos. (2020e). *Tilannekatsaus koronaviruksesta*. [Updated coronavirus info]. Retrieved May 6, 2020, from <https://thl.fi/fi/web/infektio-audit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta>
- Terveyden ja hyvinvoinnin laitos. (2020f). *Tilannekatsaus koronaviruksesta 29.5.2020* [Updated coronavirus info]. Retrieved May 29, 2020, from https://thl.fi/fi/web/infektio-audit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta#muu_maaailma
- Terveyden ja hyvinvoinnin laitos. (2020g). *Tilannekatsaus koronaviruksesta 31.5.2020*. [Updated coronavirus info]. Retrieved June 1, 2020, from <https://thl.fi/en/web/infectious-diseases/what-s-new/coronavirus-covid-19-latest-updates/situation-update-on-coronavirus>
- The Lancet Child & Adolescent Health. (2020). Pandemic school closures: Risks and opportunities. *The Lancet Child & Adolescent*, 4(5), 341. <https://www.sciencedirect.com/science/article/pii/S235246422030105X>
- Treibel, T., Manistry, C., Burton, M., McKnight, A., Lambourne, J., Augusto, B., Couto-Parada, X., Cutino-Moguel, T. & Moon, J. (2020). COVID-19: PCR screening of asymptomatic health-care workers at London hospital. *The Lancet*, 395, 1401-1460. [https://doi.org/10.1016/S0140-6736\(20\)31100-4](https://doi.org/10.1016/S0140-6736(20)31100-4)
- Tucker, M. S. (2019). *Leading high-performance school systems: Lessons from the world's best*. Alexandria, VA. ASCD.
- Turunen, P. (2020, May 8). Huoltovarmuuskeskuksen maskikohun seurauksena kahdelle potkut. [Two Board members fired due to mask scandal in National Emergency Supply Center]. *Ilta-sanomat*. <https://www.is.fi/kotimaa/art-2000006500829.html>
- University of Turku. (2020). *Mediatiedote koronaepidemiaan vaikutuksista peruskoululaisten oppimiseen ja hyvinvointiin 2020* [Media release about corona epidemic influence on pupils learning and well-being 2020]. Retrieved June 2, 2020, from <https://www.utu.fi/fi/ajankohtaista/mediatiedote/koronaepidemiaan-vaikutusta-peruskoululaisten-oppimiseen-ja-hyvinvointiin>
- UNESCO. (2020). *Covid-19 educational disruption and response*. Retrieved May 6, 2020 and June 1, 2020, from <https://en.unesco.org/covid19/educationresponse>
- UNESCO. (2016). *UNESCO strategy of education for health and well-being: contributing to the sustainable development goals*. Retrieved May 27, 2020, from <https://unesdoc.unesco.org/ark:/48223/pf0000246453>
- Van Manen, M. (2011) *Phenomenologyonline*. Retrieved April 21, 2020, from <http://www.phenomenologyonline>.

- com/inquiry/orientations-in-phenomenology/hermeneutical-phenomenology/
- Van Manen, M. (2006). Writing qualitatively, or the demands of writing: *Qualitative Health Research*, 16(5), 713–722. <https://doi.org/10.1177/1049732306286911>
- Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In T. C. Urdan & S. A. Kavabenick (Eds.). *The decade ahead: Theoretical perspectives on motivation and achievement (Vol. 16A)* (pp.105–166). Bingley, UK: Emerald.
- Vesala, H. (2020, May 9). Li Andersson vastaa IS:n haastattelussa koulujen avaamiseen liittyviin huoliin ja myöntää: Syksy voi sulkea koulut uudelleen – ”Sekin pitää pohtia”. [Li Andersson replies for worries caused by opening the schools, admitting they may be closed again in autumn]. *Iltasanomat*. <https://www.is.fi/kotimaa/art-2000006502314.html>
- Viner, R.M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C. & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. *Lancet Child & Adolescent Health*, 4, 397–404. [https://doi.org/10.1016/S2352-4642\(20\)30095-X](https://doi.org/10.1016/S2352-4642(20)30095-X)
- Vogel, G. (2020). How Sweden wasted a ‘rare opportunity’ to study coronavirus in schools. *Science*. DOI:10.1126/science.abc9565
- Vogel, G., Couzin-Franckel, J. (2020). Should schools reopen? Kids’ role in pandemic still a mystery. *Science*. DOI:10.1126/science.abc6227
- Volmari, K. (2019). Basic education in the Nordic region. Similar values, different policies. Helsinki: Finnish National Agency of Education. Reports and surveys 2019:4. Retrieved May 18, 2020, from <http://www.oph.fi>
- Wilder-Smith, A. & Freedman, D.O. (2020). Isolation, quarantine, social distancing and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak, *Journal of Travel Medicine*, 27, 1–4. <https://doi.org/10.1093/jtm/taaa020>
- World Health Organization (WHO). (2020). *The Coronavirus Data*. Retrieved June 4, 2020, from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Wu, Z., & McGoogan, J.M. (2020). Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases from the Chinese Center for Disease Control and Prevention. *JAMA*, 323(13), 1239–1242. DOI:10.1001/jama.2020.2648
- Yleisradio [National Broadcasting Company of Finland]. (2020a). THL:n pääjohtaja Ylen haastattelussa: koronaepidemia pitäisi nyt pyrkiä tukahduttamaan [CEO of THL to National Broadcasting Co. interviewer: corona epidemic should now be damped down]. Retrieved June 3, 2020, from <https://yle.fi/uutiset/3-11351110>
- Yleisradio. (2020b). Koronakevät välttyi pelätyltä katastrofilla – kouluista ei tullut viruslinkoja [“Corona spring” didn’t turn catastrophic – schools were not superspreaders]. Retrieved June 4, 2020, from <https://yle.fi/uutiset/3-11373992>
- Yleisradio. (2020c). Koronakevät osoitti, että hallinnon läpinäkyvyys ei aina toteudu...[“Corona spring” revealed that transparent governance doesn’t always take place]. Retrieved June 6, 2020, from <https://yle.fi/uutiset/3-11379625>
- Zhang, T., Fu, X., Kwoh, C., Wong, L., Ma, S., Soh, H., Lee, G.K.K., Hung, T., & Lees, M. (2011). Temporal factors in school closure policy for mitigating the spread of influenza. *Journal of Public Health Policy* 32, 180–197. <https://doi.org/10.1057/jphp.2011.1>
- Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2007). The Scientific Base Linking Social and Emotional Learning to School Success, *Journal of Educational and Psychological Consultation*, 17(2-3), 191–210, DOI: 10.1080/10474410701413145