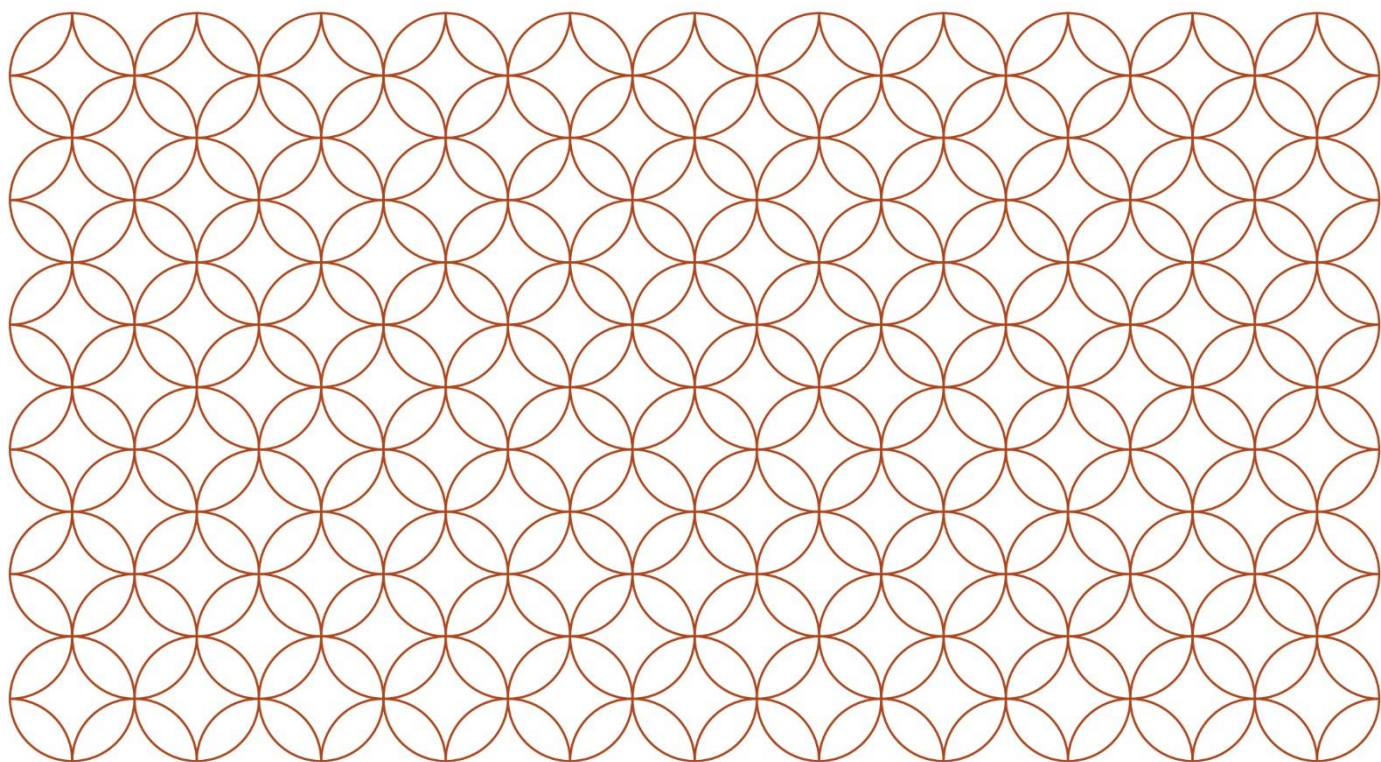


# **Consequences of the COVID-19 pandemic for the education system**

Final Report



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# Foreword

The Swedish National Agency for Education was tasked by the Swedish Government to carry out supporting efforts as well as to follow up and evaluate the consequences of the pandemic. The National Agency for Education has also been given the assignment of implementing actions to handle both the short- and long-term consequences of the pandemic for education within the school system. This final report is based on a synthesis of the National Agency for Education's collective experience of the pandemic's impact on the education system along with reports from other school authorities and other actors.

The work on the final report was led by Director of Education Katarina Nyström. Other contributors to the publication included Directors of Education Frida Andersson, Linnea Hamrefors, Sanna Vent, Irma Lejlic, Malin Jondell Assbring, Thomas Furusten, Jonas Sandqvist, Anders Auer, Per Alvant, Anders Lindberg and Helena Svensson. Operations Controller Anders Lindquist and Director of Education Matilda Östman produced the description of the National Agency for Education's supporting work during the pandemic. The National Agency for Special Needs Education and Schools also participated in this work.

The National Agency for Education would like to particularly thank all teachers, principals and organisers<sup>1</sup> who participated in the various studies that form the basis of this final report.

Solna, 16 December 2022

Peter Fredriksson  
Director General

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<sup>1</sup> Organisers include both local authorities as well as private providers.

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# Summary

The COVID-19 pandemic was an extraordinary situation for the Swedish education system that brought new challenges and uncertain conditions for the school organisations. All levels of the education system together made a decisive effort to limit the impact of the pandemic on the learning and well-being of the pupils. Organisers<sup>2</sup> and school management took responsibility for ensuring that operations could be conducted in a functional manner and that teachers, preschool teachers and other staff made the teaching and care of children and pupils function despite the pandemic. Yet the pandemic has also had consequences. The Swedish National Agency for Education assesses, among other things, that the pandemic has amplified existing challenges in the school system, above all those linked to equality and the school's compensatory mission. It is now important to learn from the handling of the pandemic while also continuing to monitor its impact and compensate for its adverse effects.

During the pandemic, the National Agency for Education was tasked by the Government to monitor the consequences for the education system and provide both short- and long-term support in the handling of the pandemic. This final report presents the National Agency for Education's general view of the pandemic's impact on the education system.

## The pandemic changed the conditions for conducting education and teaching

The regulations to limit the spread of COVID-19 drastically changed the conditions for conducting education and teaching in the Swedish education system. Remote teaching became a new form of instruction, primarily in the compulsory lower-secondary schools and the upper-secondary schools, and national tests were cancelled in both lower-secondary schools and in the upper-secondary schools. The pandemic also brought increased State governance of the education system and new actors, such as other public authorities and regional infection control agencies, gained influence over the education system's operations. The spread of COVID-19 and the measures to limit this also meant increased absences among both staff as well as children and pupils. This had consequences for all forms of schooling, but to varying degrees depending on the extent of the spread of infection and on the conditions of each form of schooling.

## Great differences in pandemic consequences

The different levels of the school system give a clear picture of an uneven influence on the quality of the education and on the pupils' knowledge

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<sup>2</sup> Organisers include both local authorities as well as private providers.

development and well-being during the pandemic. Many organisers, principals and teachers state that there are schools, preschools and upper-secondary-level adult education organisations that experienced no or only very minor impact during the pandemic. Yet there are others who state that there has been a major impact on the teaching and on the knowledge development and well-being of the children and pupils. The differences are rooted in both developments in the spread of the infection and absences regionally over time, as well as in the organisations' varying conditions to address the changes occasioned by the pandemic.

## Absences, restrictions and remote teaching affected knowledge development in certain subjects and pupil groups

The National Agency for Education assesses that absences among children and pupils in many cases adversely affected the quality of the teaching, for example because teaching elements recurrently needed to be repeated. This was particularly prominent in the preschools and primary and lower-secondary schools, which for the most part carried out teaching and care in their regular premises. It was also the case during the latter part of the pandemic in the upper-secondary schools, when the pupils were to some extent once again physically in the schools. The National Agency for Education assesses that the increased staff absences in all forms of schooling also meant that the quality of the teaching was adversely affected in many areas, as the teaching could not be carried out as planned. Teachers often needed to substitute for absent colleagues and there was less time to plan and follow up on their teaching. Prevailing restrictions also limited the ability of teachers to devote themselves to teaching and to conduct teaching elements that could strengthen the complexity and depth of the teaching. The situation meant a more strained work environment for preschool teachers, teachers and other staff, but also to some extent worsened conditions for the pupils' knowledge development.

The view formed by the National Agency for Education is that remote teaching was often characterised by lower teaching quality than face-to-face instruction and associated with more difficult interaction and less activity and participation in the lessons. Remote teaching often meant poorer opportunities for support and stimulation in the teaching and more difficult skills training of practical course components. This led to worsened conditions for the pupils' knowledge development and primarily affected pupils in the compulsory lower-secondary schools and in the upper-secondary schools, and in some areas within municipal adult education. The extent of the impact seems to have depended, among other things, on how much remote teaching the pupils received, how things looked in the organisations before the transition to remote teaching, and on the teachers' and pupils' technical conditions and skills.

It is not possible based on available data to assess with certainty what impact the pandemic has had on the pupils' knowledge development. However, both the Swedish National Agency for Education and the Swedish Schools Inspectorate have conducted several studies in which teachers, principals and others have been asked to assess to what extent pupils have received the knowledge and skills they normally would have received. Based on these, it is assessed that children and pupil absence, impact on regular teaching and remote teaching have in many cases had consequences for the knowledge development of children and pupils. Knowledge development was affected unevenly, however, and it was primarily in certain pupil groups and subjects that principals and teachers saw a loss of knowledge during the pandemic. In the preschools, the high rates of absence among children and staff have, according to many principals, affected the children's opportunities to develop in accordance with the goals for preschool. Some children were hampered in their language development and were less prepared for the start of preschool class. The high pupil absence rates in primary and lower-secondary school also meant that pupils missed teaching, which, depending on how this could be made up, could have led to them not receiving the same knowledge and skills as they normally would have received. According to teachers and principals, this particularly applied to pupils who already before the pandemic had poorer conditions to absorb the teaching, such as pupils with previous high absenteeism or support needs, or pupils with other native languages than Swedish.

The loss of knowledge was clearer in the upper-secondary schools, according to principals and teachers, but not as generally dispersed as in the primary and lower-secondary schools, because it was primarily assessed to be due to remote teaching being less effective for the development of knowledge in some subjects. This particularly applied, according to principals and teachers, to mathematics, modern languages, and subjects with practical elements. Certain pupil groups were also assessed to have been affected more than others, which, just as in the primary and lower-secondary schools, involves pupils who had poorer conditions even before the pandemic to achieve the education goals. Many teachers in the primary and lower-secondary schools and upper-secondary schools experienced during the pandemic that it was difficult to fully compensate for the loss of knowledge that occurred. In adult education at upper-secondary level, the development of knowledge was particularly affected for pupils in Swedish for immigrants (SFI) because less face-to-face instruction was provided than usual, which meant that pupils in SFI were in the programme for a longer period of time.

## Well-being and social skills were affected in some cases by a changed school environment

When the restrictions during the pandemic entailed severely restricted social contacts and cancelled leisure activities, the school could offer a social context in which children and young people could meet peers and have positive and

supportive relationships with adults. That a regular school day could be maintained for, above all, younger children and pupils in Sweden seems to have had a positive influence on both well-being as well as knowledge development and social development. That said, the pandemic also meant great changes in the lives of children and young people, and principals and teachers report that it led to poorer well-being for some pupils. Principals and teachers report that the well-being of pupils in lower-secondary compulsory and upper-secondary schools was particularly affected. In many cases, this was linked to remote teaching and the increased isolation and study stress that this could involve. Study motivation was also affected in many cases. The National Agency for Education also sees signs of some residual effects on pupils' social skills and relational abilities for pupils who have had high absenteeism or received large parts of their teaching remotely. Among other things, this concerns an unfamiliarity with cooperating and working in groups.

The possibilities of conducting health-promoting and preventative efforts as well as efforts and investigations for pupil absenteeism were limited in both the compulsory primary and lower-secondary schools and in the upper-secondary schools during the pandemic. In the compulsory schools, it was absences among staff and pupils and the pandemic restrictions that prevented pupil health interventions, while in the upper-secondary schools, it was primarily due to activities being conducted remotely. That pupil health services had poorer conditions to prevent ill health during the pandemic carries a risk that pre-existing problems may have been amplified or reinforced among some pupils.

## The pandemic brought a digital leap

The pandemic meant that many teachers and other staff had to readjust in a short period of time and handle both new technologies and new forms of teaching. Although this was challenging and taxing in many ways, there were many positive experiences and examples of new ways of working that emerged during the pandemic and which, according to principals and teachers, will in some cases remain in the education. Above all, this concerns an increased understanding of the possibilities of digitalisation and new ways of using digital technology to develop teaching. Teachers state, for example, that they now use virtual learning environments to a greater extent to create clarity and structure in the teaching. The digital leap that teachers and pupils have taken during the pandemic has the potential to improve the teaching. At the same time, it is important that the digital technology is used as a complement to the other face-to-face instruction in the classroom.

## Signs of continued influence of the pandemic on schools that previously experienced a loss of knowledge

In the autumn of 2022, the National Agency for Education conducted two case studies of schools that previously reported a loss of knowledge, to increase knowledge of what the pandemic's consequences for pupils' knowledge development might consist of. The studies are based on limited data and are not generalisable but can provide important increased understanding of what knowledge and skills were impacted during the pandemic. Principals and teachers at these schools, who had previously reported a loss of knowledge *in preschool class and primary school years 1–3* assess that there has above all been a relatively large impact on the pupils' language development and social abilities during the pandemic. Pupils in the younger ages are reported to have poorer knowledge of how to behave in a group, which has led to further conflicts and meant that teachers have had to spend a lot of time strengthening the pupils' social abilities. This can be explained by high absence rates among pupils and staff in the preschools and compulsory schools, and in some cases, a deterioration in the quality of the teaching. The pupils in the preschool class and primary school years 1–3 that had schooling-related challenges before the pandemic are assessed to have been hit hardest by the pandemic's consequences in these schools.

Principals and teachers in the *compulsory schools and upper-secondary schools* that previously reported a loss of knowledge in mathematics report in this case study that their pupils to some extent still have a loss of knowledge as a result of the pandemic, but that this varies a great deal between schools, pupil groups and school-year cohorts. The loss of knowledge is assessed to be particularly apparent in the subject of mathematics, which was difficult to teach remotely and was hit hard by high pupil absenteeism. Some teachers and principals in the autumn of 2022 notice continued high absenteeism, reduced motivation and poorer well-being among the pupils. All schools in the study have implemented actions to compensate for the loss of knowledge, though these are seldom directed at all pupils but rather mostly to pupils at risk of not attaining a passing grade. The study points out that the efforts are largely dependent on financial resources and staff.

## Stable grades during the pandemic but some decline towards the end of the pandemic

In 2020 and 2021, grades were largely stable in both the lower-secondary and upper-secondary schools. In 2022, however, merit ratings in school year 9 dropped in most subjects. This is the first time there has been a drop in grades in all pupil groups since criterion-referenced grades were introduced. For pupils born in Sweden, the merit ratings for school year 9 dropped to a slightly lower

level than they were before the pandemic. Looking at all pupil groups, however, they were back to the same level as before the pandemic. The National Agency for Education can also note that the gender differences in grades in favour of girls decreased in both 2021 and 2022. The results in the upper-secondary schools are also different for 2022 than for previous years during the pandemic. The percentage of pupils who graduated within three years decreased in the higher education preparatory programmes after having risen over the previous two years. One partial explanation for this is that a lower percentage of pupils passed the courses Swedish 3 and Mathematics 1, as well as the upper-secondary degree project required to be awarded a diploma. However, the National Agency for Education has not yet been able to perform more in-depth analyses of grade developments in the upper-secondary schools for this entire period of time.

Grades are not fully reliable for measuring pupils' knowledge development, however. The National Agency for Education has been highlighting for some time the challenges that exist in creating equitable grading, and has pointed out that the knowledge results in international measurements do not always show the same developments as the grades. The increased pupil absenteeism and remote teaching also made it more difficult, according to many principals and teachers, to assess the pupils' knowledge during the pandemic. This is because the basis for - assessment was often more limited. Whether the drop in grades is due to the pandemic is impossible to determine, but the school year 9 pupils who graduated in 2022 was the graduating class whose schooling was most affected by the pandemic. The analyses of the National Agency for Education also show that the tendencies towards relative grading that were already seen before the pandemic seem to have been reinforced during the pandemic years, partially against the backdrop of the cancellation of the national tests. It is now important to continue to monitor and analyse the pandemic's impact on grades and knowledge development.

## Sweden's handling of the pandemic within the schools has several benefits in an international comparison

Compared with several other European countries, Sweden has an advantage in that preschools and schools for younger pupils were never closed. Until May 2021, Sweden was largely alone in not applying a general closure of compulsory schools, and during the same period, Sweden was one of few European countries that did not close preschools. For the upper-secondary schools, Sweden's handling has been more similar to that of the rest of Europe. School closures were most common in the upper-secondary schools in the beginning of the pandemic, when remote teaching was provided. An increasing number of countries subsequently switched to different forms of hybrid teaching. The Nordic school systems, including Sweden, were comparatively well prepared in terms of access

to technical equipment, even if Swedish teachers' estimation of their own technological competence is relatively average in an international comparison.

Several countries have identified a significant loss of knowledge during the pandemic. School closures and remote teaching have adversely affected pupils' knowledge development. At the same time, it is clear that the impact on the pupils' learning has varied between different pupil groups and that certain pupil groups have been hit particularly hard. This concerns pupils with less favourable socio-economic conditions, pupils who are new arrivals to Sweden or asylum-seekers, and pupils with various disabilities. As shown above, pupils with less favourable socio-economic conditions and native languages other than Swedish were also particularly affected in Sweden.

## The National Agency for Education has implemented actions to support the education system during the pandemic

In February 2020, the Swedish National Agency for Education began collaborating with other public authorities to develop support for schools and organisers. To offer the best support possible, the authority consulted with other public authorities, organiser organisations, trade unions and pupil associations to identify and discuss various issues in the education system. The support that the National Agency for Education has worked with includes quickly reaching out with information on regulatory frameworks via its website and newsletters. The National Agency for Education has also published additional web pages in which the Agency has collected support for, e.g., knowledge charting and pupil health. The National Agency for Education also contributed to the website *Skola hemma* [School at Home], which contained support focused on remote teaching during the pandemic.

## Continues to be important to compensate for the loss of knowledge that occurred during the pandemic

The education system has made a decisive effort to limit the impact of the pandemic. Yet, as mentioned previously, organisers, principals and teachers assess that certain pupil groups and subject areas in particular have been especially impacted during the pandemic, and that in some cases there are signs of residual knowledge losses even after the pandemic. It is therefore the view of the National Agency for Education that schools need to actively work to monitor the impact of pupils' knowledge development and meet the remaining needs for support that may exist. In these efforts, there is a particular need to focus on pupils' mathematics skills. Furthermore, all levels in the education system must take an overall approach to ensure that pupils with another native language than



Swedish are given the opportunity to receive sufficient support as needed in their language development and to catch up in their knowledge development. A strengthened supply of teachers and pupil health service staff are key components in being able to address the residual consequences of the pandemic in terms of children's and pupils' well-being and knowledge development.

## The pandemic has highlighted and reinforced previous challenges with equality in the education system.

The National Agency for Education sees that the pandemic has meant that previously known challenges in the school system have been accentuated in importance and effect, which has impacted the pupils' conditions for learning and well-being during the period. There have been great differences between different preschools, schools and organisations in the extent to which it has been possible to give children and pupils an education of good quality during the pandemic. Organisations' differing teacher supply conditions, for example, affected the possibility of substituting for absent staff and for creating a reasonable workload with time to plan and carry out good teaching. There have also been great differences in terms of access to technical solutions for remote teaching and in the competence to use these.

When the pandemic periodically meant that many pupils' study environments were moved from the classroom to the home, the pupils' home conditions took on increased importance for their conditions for learning and well-being. Some pupils had access to their own separate workplace with good technical conditions and guardians or older siblings at home who could assist the pupils in their studies. Other pupils did not have these conditions, which meant that their studies were adversely affected in the form of the lack of a positive and peaceful study environment or reduced access to support and functioning technology. The pupils' home conditions took on increased importance for preschool children and pupils in the lower years of compulsory school as well. These children and pupils were often affected by recurring absences during the pandemic and where thus at home without teaching, or with teaching in the form of homework or other independent study. The possibilities of the guardians to assist the pupils in their independent study therefore had increased significance for the pupils' knowledge development.

The National Agency for Education sees that it has been more difficult for the organisations to work with the compensatory mission during the pandemic. Increased workloads for teachers and pupil health services staff and high absence rates among both staff and pupils have made it more difficult to monitor the pupils' support needs and to implement support activities in all forms of schooling. In the upper-secondary schools in particular, the long periods of remote teaching contributed to additional difficulties in both detecting pupils'

support needs and in providing support and stimulation. This has been something that limited the pupil health services' opportunities to carry out their mission and support all pupils fully during the pandemic. This occurred in conjunction with increased differences in the pupils' conditions for learning and a greater importance in pupils' home conditions for their development, learning and well-being. The schools' compensatory mission to weigh differences in the pupils' conditions to absorb their education was consequently made more difficult during the pandemic. This particularly affects children and pupils with support needs, less favourable socio-economic home conditions, or with another native language than Swedish.

## Lessons learned from governance of the schools during the pandemic can equip the education system for future crises

The pandemic meant a temporary increase in governance of the education system from both the Government as well as national and regional authorities. Organisers report a lack of clarity in this governance and state that new requirements were placed on the organisers to continuously compile and interpret the governing rules in place for school operations and to support the principals in the implementation of these.

It is of great importance to now draw lessons from the experiences of school governance during the pandemic in order to equip the Swedish education system for future crises. The National Agency for Education believes that enhanced cooperation between authorities is important to create clarity towards the school's target groups in potential future crises. The National Agency for Education also assesses that a more clearly defined role for the Agency in the regulatory requirements drawn up in connection with the pandemic could have provided better conditions for the National Agency for Education to assume more overall responsibility. The National Agency for Education acted more forcefully the longer the pandemic lasted, but still viewed the Agency's formal mandate as limited to be able to move beyond a role in which the Agency offered support and facilitated dialogue between different levels and actors. The National Agency for Education is positive to the Agency's new mission as an emergency response authority. With this new role, the National Agency for Education can better contribute to more clearly conveying governing signals and meeting the needs that may arise in a crisis by meeting and exchanging experiences within the various levels of the education system.

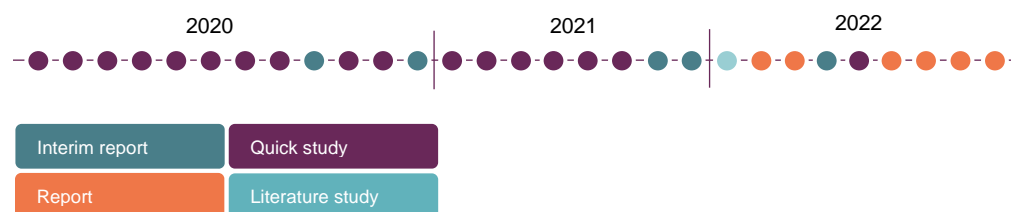
# 1. Introduction

The COVID-19 pandemic has meant an extraordinary situation for the Swedish education system. Major trade-offs have needed to be made between counteracting the spread of disease and limiting the pandemic's effect on children's and pupils' learning and well-being. The Swedish National Agency for Education was tasked by the Swedish Government to carry out supporting efforts as well as to follow up and evaluate the consequences of the pandemic. The National Agency for Education has also been given the assignment of implementing actions to handle both the short- and long-term consequences of the pandemic for education within the school system.<sup>3</sup> As the assignments are substantially very similar, the National Agency for Education has chosen to report on both assignments together in this final report.

To follow up on the COVID-19 pandemic's consequences for the education system and evaluate the measures that have been taken, the National Agency for Education has carried out a number of different questionnaire and interview studies during the 2020–2022 period. Figure 1 below provides an overview of these studies. The Swedish National Agency for Education has also consulted regularly during the pandemic with representatives from organisers concerning the impact of the pandemic. This final report is based on a synthesis of the National Agency for Education's collective experience of the pandemic's impact on the education system along with reports from other school authorities and other actors. More information on previous reports within the assignment are available on the National Agency for Education's website.<sup>4</sup>

When interpreting the results, it is important to take into account that these are conditions that are difficult to measure. The pandemic's impact has varied over time and affected organisations and pupils in different ways depending on various factors, including the local spread of infection and the starting position of the organisations before the pandemic. It is still too early to determine the long-term consequences of the pandemic and future research will affect the state of knowledge and could give rise to other assessments.

**Figur 1.** Overview of the Swedish National Agency for Education's previous studies.<sup>5</sup>



<sup>3</sup> See Appropriation Directions for budget year 2021 concerning the Swedish National Agency for Education, items 14 and 21.

<sup>4</sup> Skolverket.se (2022). *Uppföljningar av coronapandemins konsekvenser* [Follow-ups on the consequences of the COVID-19 pandemic].

<sup>5</sup> The titles of the publications listed below have been translated into English here for the convenience of the reader. The original titles can be found in the list of references at the end of this report.

## 2020

Summary of responses from the school management network

Organisers on the impact of the COVID-19 pandemic – Collection 16 April 2020

The COVID-19 pandemic's impact on adult education – Collection May 2020

Study of absenteeism among staff and pupils – Follow-up for May 2020

The impact of the COVID-19 pandemic on the education system, Interim report August 2020

Overview of the situation in adult education at upper-secondary level due to the COVID-19 pandemic – Collection week 41–42

Compiled information on the situation at organisers within targeted efforts due to the COVID-19 crisis

Study of absenteeism among teachers, children and pupils – Follow-up of April 2020

Study of the COVID-19 pandemic's impact on the education system – Survey of school staff

Planning of organisers during the COVID-19 pandemic – Interview study in June 2020

Overview of the situation in upper-secondary schools due to the COVID-19 pandemic – Collection 21–25 September

The impact of the COVID-19 pandemic on the education system, interim report October 2020

## 2021

Remote teaching in lower-secondary schools (January 2021)

Study of the COVID-19 pandemic – Survey of staff in the education system on the impact of the COVID-19 pandemic, January–February 2021

Remote teaching at the lower-secondary and upper-secondary schools (April 2021)

The impact of the COVID-19 pandemic on the education system, Interim Report 3

The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Preschool

The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School

The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Upper-Secondary School and Upper-Secondary School for Pupils with Intellectual Disability

The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Municipal Adult Education

Remote teaching at the lower-secondary and upper-secondary schools (February 2021)

Changed teaching hours and loss of education – Interviews with organisers due to the COVID-19 pandemic, February 2021

Changed teaching hours and loss of education – Interviews with organisers due to the COVID-19 pandemic, April 2021

The impact of the COVID-19 pandemic on the education system, Interim Report 4

The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Preschool

The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School

The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Upper-Secondary School

The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level

## 2022

The school in the world during the COVID-19 pandemic. An international literature study

Loss of knowledge in compulsory schools during the COVID-19

The impact of the COVID-19 pandemic from December 2021 to March 2022 – Overview of the situation at 85 organisers for compulsory school and upper-secondary school 9 to 11 May 2022

Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic

Consequences of the COVID-19 pandemic for the preschools

The impact of the COVID-19 pandemic on the education

The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools

The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools

Loss of knowledge in Swedish for immigrants

## **Structure of report**

The report begins with an overview of the changes that the COVID-19 pandemic has meant for the Swedish education system (Chapter 3). Following this is an analysis of the effects that these changes have had on the Swedish education system (Chapter 4). Chapter 5 reports on two case studies that the National Agency for Education conducted in autumn 2022 to deepen knowledge about the pandemic's consequences for early learning in the preschool class and in primary school years 1–3, and on the development of knowledge in the compulsory lower-secondary schools and in the upper-secondary schools. In both cases, the Swedish National Agency for Education sought out schools in which, based on previous studies, the loss of knowledge is assessed to be greater than in these forms of schooling in general. Chapter 6 provides an overview of the development of grades during the pandemic. Following this is an international comparison of differences in handling and effects of the pandemic (Chapter 7). Chapter 8 describes the support provided by the National Agency for Education to the education system during the pandemic. Chapter 9 presents a concluding discussion on the longer-term consequences of the pandemic and suggestions for measures moving forward. This chapter is divided into themes and indicates throughout which forms of schooling the discussion concerns.

## 2. The pandemic meant sweeping changes in the Swedish education system

The regulations for limiting the spread of COVID-19 radically changed the conditions for carrying out education and teaching in the Swedish education system. Remote teaching rapidly became a new form of instruction that was carried out on an unprecedented scale and national tests were cancelled in both the compulsory schools and upper-secondary schools. The pandemic also brought increased state governance of the education system. New governance actors, such as different public authorities than the usual, as well as regional infection control agencies, gained greater influence over the education system's operations. The spread of COVID-19, as well as the measures to limit the spread, also led to periods of dramatically increased absenteeism among staff, children and pupils in the schools and preschools.

### Changed regulations for the education system

In order to limit the spread of the COVID-19 pandemic, a number of new regulations were introduced in the form of both laws and ordinances as well as recommendations and general guidelines from the authorities, which entailed major changes for education and teaching in the school system. The regulations differed depending on form of schooling and varied over time. This section summarises the changed regulations that were introduced in the preschools, primary and lower-secondary schools, upper-secondary schools and municipal adult education at upper-secondary level (Komvux) during the pandemic. The changes are described in more detail in Appendix 1. The changed rules apply to all forms of schooling unless otherwise specified.

### Many and rapid changes for the education system in 2020

In the beginning of February 2020, the Government decided that the provisions of the Communicable Diseases Act (2004:168) concerning diseases that are dangerous to the public and to society would apply for COVID-19 infections.<sup>6</sup> In the beginning of March, the outbreak of COVID-19 was classified as a pandemic.<sup>7</sup> In March, the organisers for schools were given the opportunity to make exceptions, under certain circumstances, to the provisions in the Education Act (2010:800), the Compulsory School Ordinance (2011:185) and the Upper-Secondary School Ordinance (2010:2039) concerning teaching hours. It then became possible to make exceptions concerning where the education should be

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<sup>6</sup> Ordinance (2020:20) that the provisions in the Communicable Diseases Act (2004:168) on diseases dangerous to the public and society shall be applied to infection with 2019-nCoV.

<sup>7</sup> WHO.se (2020). *WHO Timeline – COVID-19*.

located, what it should cover and how it should be designed.<sup>8</sup> The ordinance was amended on several occasions until it ceased to apply on 1 August 2022. On 17 March, the Public Health Agency of Sweden decided to recommend, among other things, that upper-secondary schools and adult education at upper-secondary level (Komvux) conduct teaching remotely beginning on 18 March 2020.<sup>9</sup> This meant that many schools and organisations had to make a major transition, on very short notice, to what was a completely new way of working for most of them. On 19 March, a new law was passed which gave the Government and organisers the opportunity to temporarily close school premises. School closures mean that teaching is not conducted at all, or that it is conducted remotely.<sup>10</sup> Later in March, recommendations also came from the Public Health Agency concerning infection prevention measures that affected, among other things, school cafeterias.<sup>11</sup> In April, the Public Health Agency decided on recommendations for individuals and organisations to take responsibility for preventing the spread of COVID-19 by keeping distance, avoiding large social gatherings, etc.<sup>12</sup> The recommendations were then changed on several occasions during the pandemic to reflect, e.g., the development of the spread of infection and the state of knowledge. Through regulatory changes, the Government also made it possible for schools to be kept partially closed, so that a small number of pupils could be offered teaching on school premises. For example, pupils could be in school for practical elements, special support and exams. All forms of schooling were affected by the change, with the exception of, e.g., preschools and school-age educare.<sup>13</sup> Later in April, it became possible to apply some of the provisions in Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections even if the school was open.<sup>14</sup>

On 29 May, the Public Health Agency announced that upper-secondary schools could open starting 15 June.<sup>15</sup> This meant that the upper-secondary schools needed to quickly readjust. This time, from remote teaching to an activity conducted on site but which should still minimise the risk of spreading infection. On 9 June, the Public Health Agency changed its general guidelines for, e.g., personal responsibility and workplaces. Employees should, for example, be able

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<sup>8</sup> Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>9</sup> Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools].

<sup>10</sup> Act (2020:148) on the temporary closure of school activities in extraordinary events during peacetime.

<sup>11</sup> The Public Health Agency of Sweden's regulations and general guidelines for preventing the spread of COVID-19 at restaurants, cafés, etc. (HSLF-FS 2020:9). The ordinance ceased to apply at the end of June 2020.

<sup>12</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:12).

<sup>13</sup> Ordinance (2020:188) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>14</sup> Ordinance (2020:257) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections, explanation (Fm 2020:06) of Ordinance amending Ordinance (2020:201) on study support during the spread of certain infections and Regeringen.se (2020). *Ökade möjligheter för fjärr- eller distansundervisning vid frånvaro kan underlätta för elever och lärare* [Increased opportunities for remote teaching in the event of absence can make things easier for pupils and teachers].

<sup>15</sup> Folkhälsomyndigheten.se (2020). *Gymnasieskolorna kan öppna till höstterminen* [Upper-secondary schools can open for autumn semester] and Regeringen.se (2020). *Kravet på distansundervisning lättas upp* [Requirement for remote teaching eased].

to practice distancing and individuals should be able to avoid public transport.<sup>16</sup> To prevent pupils from taking public transport to school during rush hours, the Government made it possible for the 2020 autumn semester to, under certain circumstances, combine certain teaching in school with remote teaching. This was announced on 16 July and entered into force on 10 August.<sup>17</sup> The possibility of remote teaching was then extended until June 2021.<sup>18</sup> In the beginning of December, the Public Health Agency published a recommendation that upper-secondary schools should be partially closed again, with the exception of certain pupils.<sup>19</sup> The recommendation began to apply four days after it was announced, and would then be in force until 6 January 2021. In the beginning of December, the Public Health Agency directed, for the first time since the start of the pandemic, a special recommendation to adult education, including adult education at upper-secondary level (Komvux), to conduct instruction remotely. This was part of a new general recommendation from the authority.<sup>20</sup> At the end of December, the Public Health Agency of Sweden extended the recommendation for upper-secondary schools to conduct teaching remotely. The original recommendation, which had been due to expire on 6 January 2021, was extended until 24 January 2021.<sup>21</sup>

## Continued remote teaching in early 2021

At the beginning of 2021, teaching at upper-secondary schools continued to be conducted remotely. At the same time, it became possible for lower-secondary schools to conduct some teaching remotely, in combination with teaching at the school, in certain circumstances. The organisers could also, under certain circumstances, make changes in teaching hours.<sup>22</sup> On 20 January, the Public Health Agency of Sweden announced the recommendation that upper-secondary schools would continue to apply remote teaching until 1 April 2021, but that this should not exceed 80 per cent of teaching hours. The recommendation came into force five days later.<sup>23</sup> The recommendation ceased to apply, as planned, through a decision by the Public Health Agency at the end of March.<sup>24</sup> The opportunity to

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<sup>16</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:12) and the Public Health Agency of Sweden's regulations amending the regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:31).

<sup>17</sup> Ordinance (2020:732) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections

<sup>18</sup> Ordinance (2020:957) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>19</sup> Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools]. See section *Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools* for a description of which pupil groups were exempted from remote teaching.

<sup>20</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:12) and Regulations amending the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:80).

<sup>21</sup> Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools].

<sup>22</sup> Ordinance (2021:10) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>23</sup> Folkhälsomyndigheten.se (2021). *Gradvis återgång till närundervisning på gymnasiet* [Gradual return to face-to-face instruction in upper-secondary schools].

<sup>24</sup> Folkhälsomyndigheten.se (2021). *Ingen förlängning av rekommendation om fjärr- och distansundervisning på gymnasiet* [No extension of recommendation for remote teaching in upper-secondary schools].



conduct remote teaching remained, however, for lower-secondary and upper-secondary schools through the Ordinance on education in the school and other pedagogical activities during the spread of certain infection. In order to give schools better conditions to plan their activities over the long term, the Government extended the period of validity of the ordinance until 31 July 2022.<sup>25</sup> At the end of May 2021, it also became possible for adult students to return to in-school teaching from the beginning of June.<sup>26</sup> Face-to-face instruction thus once again became the norm for many of Sweden's pupils in the autumn semester of 2021. At the same time, organisers and principals were encouraged to have contingency plans in place in case remote teaching needed to be reintroduced<sup>27</sup> and the general guidelines on everyone's responsibility to prevent infection were extended<sup>28</sup>. There was thus still an opportunity for organisers to conduct certain teaching remotely, for example if teachers or pupils needed to be home because they were following COVID-19 recommendations. It was also still possible to, for example, extend semesters and school days.<sup>29</sup> During the summer and autumn, the Public Health Agency removed some of the general recommendations<sup>30</sup>, to then introduce recommendations again due to the increased spread of infection in November–December 2021. The new recommendations did not, however, entail any general recommendations on remote teaching for children, pupils or adult students.<sup>31</sup> However, recommendations on infection prevention measures did come into force in adult education later in December.<sup>32</sup> The legal possibility for schools to conduct remote teaching under certain circumstances also remained.

## Gradual phasing out of recommendations and regulations in 2022

At the beginning of January 2022, the Public Health Agency's assessment of the situation remained that face-to-face instruction was best for all children and pupils in the schools, although infection prevention measures were also considered necessary in the school environment. New recommendations from the Public Health Agency on 10 January provided guidelines for these measures, which

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<sup>25</sup> Ordinance (2021:128) on continued validity of Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections

<sup>26</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:47) and Folkhälsomyndigheten.se (2021). *Vuxna kan återgå till undervisning på plats från den 1 juni* [Adults can return to in-school teaching from 1 June].

<sup>27</sup> Regeringen.se (2021). *Digitala pressträff om skolan med utbildningsministern och Folkhälsomyndigheten* [Digital press conference on schools with the Minister for Education and the Public Health Agency of Sweden].

<sup>28</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:12) and Regulations amending the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:50).

<sup>29</sup> Ordinance (2021:810) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>30</sup> Folkhälsomyndigheten.se (2021). *Många restriktioner tas bort den 29 september* [Many restrictions lifted on 29 September].

<sup>31</sup> Folkhälsomyndigheten.se (2021). *Nya åtgärder för att begränsa spridning av covid-19* [New measures to limit the spread of COVID-19] and Public Health Agency of Sweden (2021). *Beslut om rekommendationer* [Decision on recommendations].

<sup>32</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:104) and Folkhälsomyndigheten.se (2021). *Flera nya åtgärder vidtas den 23 december när smittspridningen väntas öka* [Several new measures to be introduced on 23 December when spread of infection is expected to increase].

would come into effect on 12 January.<sup>33</sup> On 2 February, however, the public authority announced that most COVID-19 recommendations would be lifted a few days later<sup>34</sup> and at the beginning of March, the Government announced that the possibility for schools to conduct remote teaching would also be removed in the beginning of April. Possibilities to make certain adaptations in activities remained until summer 2022, however.<sup>35</sup> As of 1 April, COVID-19 was no longer classified as a disease dangerous to the public and society, although certain recommendations remain.<sup>36</sup>

## Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools

With the new recommendations (see *Changed regulations during the COVID-19 pandemic meant big changes for the education system*), remote teaching largely became a new form of working, particularly in compulsory lower-secondary schools, upper-secondary schools, and parts of adult education where it had not previously been used.<sup>37</sup> The length of periods of remote teaching the pupils had, and how many pupils this comprised, varied from semester to semester. In general, upper-secondary pupils had more remote teaching than lower-secondary pupils.

### The recommendation on remote teaching during different periods

As described above, it was possible for most forms of schooling<sup>38</sup> to, in certain circumstances, conduct teaching remotely

#### What does 'remote teaching' mean?

During the COVID-19 pandemic, it became possible for organisers to arrange instruction so that teachers and pupils were separated in space but not time, or separated in space and time (see Ordinance 2020:115).

That teachers and pupils were **separated in space but not time** meant that teachers and pupils were in different places, but the instruction took place simultaneously for all of them in terms of time. For example, the instruction could take place in real time through meeting tools online, when both teachers and pupils were at home.

That teachers and pupils were **separated in space and time** meant that instruction was conducted at different times for teachers and pupils, while teachers and pupils were in different places. For example, it could be that the teacher video-recorded a review at home in the morning that the pupil then watched as a lesson in the

<sup>33</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:104) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2022:1).

<sup>34</sup> Regulations on the repeal of the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:87) on infection prevention measures against the disease COVID-19 (HSLF-FS 2022:14), Regulations on the repeal of the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:104) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2022:15) and Folkhälsomyndigheten.se (2022). *Pandemin med covid-19 går in i en ny fas* [The COVID-19 pandemic enters a new phase].

<sup>35</sup> Ordinance (2022:114) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections and Regeringen.se (2022). *Möjligheten att bedriva fjärr- och distansundervisning på grund av pandemin tas bort* [Possibility to conduct remote teaching due to the pandemic is repealed].

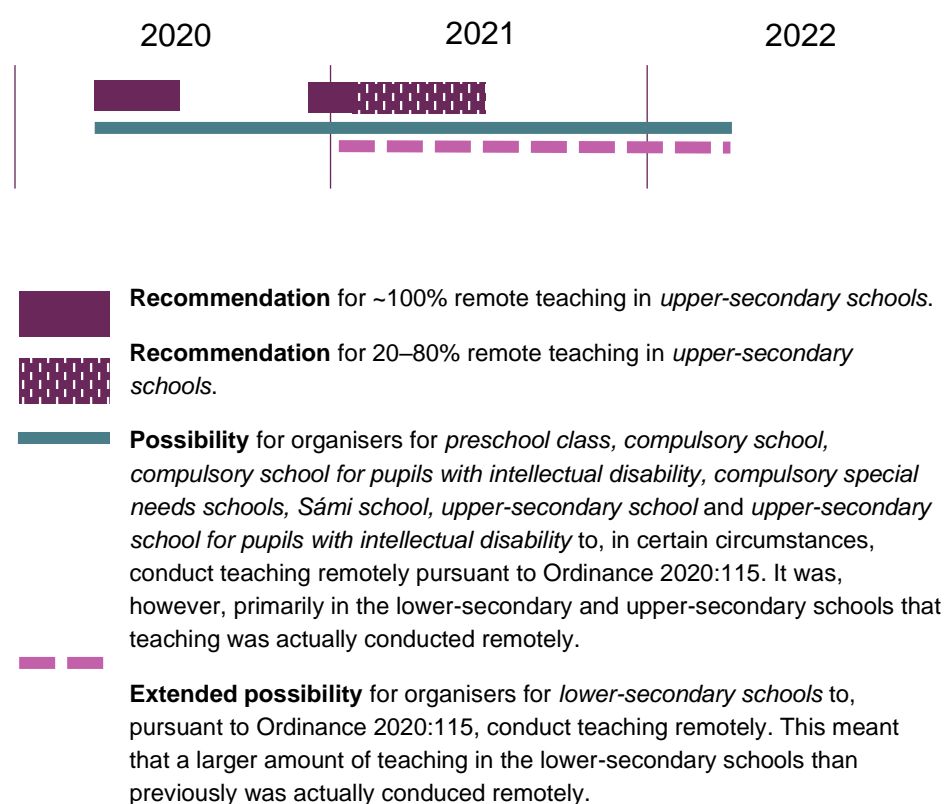
<sup>36</sup> Krisinformation.se (2022). *Coronapandemin: detta gäller just nu* [Corona pandemic: What applies right now].

<sup>37</sup> Ordinance 2020:115 made it possible to conduct teaching remotely, for example in the event of staff shortages, which meant that remote teaching also occurred in the lower school years of compulsory school (although to a limited extent).

<sup>38</sup> Preschool class, compulsory school, compulsory school for pupils with intellectual disability, compulsory special needs schools, Sámi school, upper-secondary school, and upper-secondary school for pupils with intellectual disability.

during a large part of the pandemic.<sup>39</sup> This meant that remote teaching may have occurred in most forms of schooling, even if it was most common in the upper-secondary schools. This was because the Public Health Agency periodically directed special recommendations to upper-secondary schools to conduct teaching remotely. Barely a year into the pandemic, this also became more common in the lower-secondary schools. Figure 2 below illustrates these recommendations as well as the organisers' possibility to arrange remote teaching during the years 2020–2022. In the following section, we go through the outcome of these recommendations and legislative changes.

**Figure 2.** Recommendations on, and possibility to, conduct teaching remotely during the pandemic.



From 18 March to 15 June 2020, all upper-secondary schools were recommended to conduct teaching entirely remotely. The recommendation was removed before the autumn semester and from August to November 2020, the upper-secondary schools resumed teaching on school premises. On 7 December 2020, the upper-secondary schools were once again recommended to conduct teaching entirely remotely for most pupils. This recommendation ceased to apply on 24 January 2021. From 25 January to 1 April 2021, upper-secondary schools were

<sup>39</sup> Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections and Act (2020:148) on the temporary closure of school activities in extraordinary events during peacetime.

recommended to conduct 20–80 per cent of teaching remotely for most pupils. On 2 April 2022, the possibility to conduct teaching remotely was repealed.

There were thus certain periods in which remote teaching was not recommended, although, as previously mentioned, the organisers had the possibility during virtually the entire pandemic to (under certain circumstances) decide whether and when teaching would be conducted remotely. At the beginning of January 2021, changes were furthermore made in the Ordinance on education in the school and other pedagogical activities during the spread of certain infections<sup>40</sup>, which in particular made it easier for organisers to decide on conducting remote teaching in the lower-secondary schools.<sup>41</sup> This led to an increased occurrence of remote teaching in the lower-secondary schools.

### **Certain groups of pupils were exempted from remote teaching**

Some pupils were considered extra vulnerable to remote teaching during the pandemic. Starting on 6 April 2020, certain groups of pupils were therefore exempted and instead had the possibility to receive some teaching in the school. Grounds for exemption included the pupil needing to be in school for practical elements, for special support, or for examinations. It could also be that the pupil needed this for physical, psychological or other reasons.<sup>42</sup> Nearly all lower-secondary schools exempted pupils who needed special support and many also exempted pupils in need of extra adaptations or for social reasons. Many of these received face-to-face instruction, that is, ordinary teaching on school premises, but some followed the teaching remotely from the school's premises. In the upper-secondary schools, pupils in vocational programmes more often received instruction in the schools than pupils in higher education preparatory programmes, who instead more often had to follow the instruction remotely from the school. There were also more pupils in the introductory programmes who received face-to-face instruction than pupils in the higher education preparatory programmes, regardless of reason for exemption. In general, pupils in the vocational and introductory programmes were prioritised for face-to-face instruction during the pandemic.<sup>43</sup>

### **Varied extent of remote teaching between semesters**

The teaching that was conducted remotely for lower-secondary and upper-secondary pupils from the spring term of 2020 to the spring term of 2021 was most often carried out by teachers and pupils being separated in space but not in time. The teaching was then conducted, for example, in real time using meeting tools.<sup>44</sup>

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<sup>40</sup> Ordinance (2021:10) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>41</sup> All regulations and recommendations are described in more detail in *Changed regulations during the COVID-19 pandemic meant big changes for the education system* and in even more detail in Appendix 1.

<sup>42</sup> Ordinance (2020:188) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>43</sup> Statistics Sweden (2022). *Fjärr- och distansundervisning i grund- och gymnasieskolan under coronapandemin* [Remote teaching in the compulsory and upper-secondary schools during the coronavirus pandemic].

<sup>44</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic] and SCB (2022). *Fjärr- och distansundervisning i*

During the pandemic, pupils born in 2004–2007 attended lower-secondary school and pupils born in 2001–2004 attended upper-secondary school. These pupils have received teaching remotely to varying degrees, which is illustrated in Table 1 below.<sup>45</sup>

**Tabell 1.** The cohorts of pupils covered by recommendations for remote teaching during the pandemic and to what extent, according to Statistics Sweden’s survey.

Pupils’ year of birth	Pupils’ school year or academic year		
	Spring 2020	Autumn 2020	Spring 2021
2007		School year 7	School year 7
2006	School year 7	School year 8	School year 8
2005	School year 8	School year 9	School year 9
2004	School year 9	Year of study 1	Year of study 1
2003	Year of study 1	Year of study 2	Year of study 2
2002	Year of study 2	Year of study 3	Year of study 3
2001	Year of study 3		

The table shows the years of birth and the years of study for the pupils who attended compulsory lower-secondary school (school years 7–9) and upper-secondary school (years of study 1–3) during the pandemic. The year of birth is the year in which most of the pupils in each school year/year of study are born. The colours in the table illustrate the extent of the teaching that the pupils received remotely, where a lighter colour shows a lower extent and a darker colour shows a higher extent. This information has been taken from the data from Statistics Sweden’s report, which is presented in this section. As of the autumn semester 2021, it was no longer recommended that the pupils receive teaching remotely.

### Nearly all upper-secondary pupils received remote teaching in the 2020 spring semester

Few lower-secondary pupils (7 per cent<sup>46</sup>) received remote teaching during the beginning of the pandemic. On average, it concerned about three weeks of full-time studies<sup>47</sup> for these pupils, usually several weeks in a row. In contrast, nearly all upper-secondary pupils (84–93 per cent) received remote teaching (84 per cent definitely did and the remaining 9 per cent may have<sup>48</sup>). On average, they had remote teaching for 12 weeks, converted to full-time studies, usually several weeks in a row.<sup>49</sup> Because this was halfway into the semester, the extent of

*grund- och gymnasieskolan under coronapandemin* [Remote teaching in the compulsory and upper-secondary schools during the coronavirus pandemic]. For analyses of the impact of remote teaching on grades, see Appendix 1.

<sup>45</sup> The Statistics Sweden (SCB) survey does not include the lower grades of compulsory school, school years 1–6, although teaching was conducted remotely on a small scale even there. One-third of the schools that had school years 4–6 and one in ten of the schools that had school years 1–3 had conducted teaching remotely. See Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>46</sup> Statistics Sweden measured the proportion of pupils who received remote teaching at least two days a week.

<sup>47</sup> Statistics Sweden measured the extent of remote teaching for the pupils that (definitely) received remote teaching, and reports the extent converted to number of weeks of full-time remote studies. For reference, an academic year comprises 40 weeks in both compulsory and upper-secondary school. The 2020 spring semester from 15 March onwards was 12 weeks, the 2020 autumn semester was 17 weeks and the 2021 spring semester was 19 weeks, excluding school holidays. (The number of weeks in a semester may, however, also vary between different organisers.)

<sup>48</sup> Statistics Sweden’s statistics for upper-secondary school contain more uncertainty than those for compulsory school. For some upper-secondary pupils, Statistics Sweden knows with certainty that the pupils received remote teaching, while for other pupils, this is not as certain. The proportion of pupils that received remote teaching is therefore presented as an interval. The lower percentage is the pupils that definitely received remote teaching. The upper percentage is the pupils who definitely received remote teaching plus the percentage of pupils who may have received remote teaching.

<sup>49</sup> Only a small percentage of the pupils received remote teaching interspersed with face-to-face instruction.

remote teaching was very large and covered basically the entire rest of the semester.

### **Many upper-secondary pupils received remote teaching in the 2020 autumn semester, but to a lesser extent**

During the autumn semester, the proportion of lower-secondary pupils who received remote teaching increased to about one-third (33–34 per cent). On average, this was about the equivalent of one week of full-time remote study. It was most common that the teaching was arranged remotely several weeks in a row for these pupils.

The majority of upper-secondary pupils (75–87 per cent) received remote teaching during this semester. The extent of the remote teaching was lowest this semester, however, with only three weeks of full-time study on average. About one-third of the pupils received remote teaching several weeks in a row and for just as many, remote teaching was alternated weekly with face-to-face instruction. About one-fourth of the upper-secondary pupils received teaching on school premises and remotely during the same week.

### **Many lower-secondary and upper-secondary pupils received remote teaching during the 2021 spring semester**

During the 2021 spring semester, the majority (79–81 per cent) of the lower-secondary pupils received remote teaching. These pupils received remote teaching for a longer period than previously, with an average of five weeks converted to full time. For nearly half (40 per cent) of the pupils who received remote teaching, it lasted 5–9 weeks, and for about one in ten (13 per cent), it lasted 10 weeks or longer. It became more common for pupils in school year 9 to be prioritised for face-to-face instruction, so it was primarily pupils in school years 7 and 8 who received remote teaching. For the pupils who received remote teaching, it was most common that it was alternated with teaching in the school.

During the first half of the spring semester, upper-secondary schools were recommended to conduct remote teaching to varying extents. This resulted in nearly all (80–90 per cent) of the upper-secondary pupils receiving remote teaching at some point during the semester. In total, the average was 7 weeks of full-time remote study. During the semester, however, it was uncommon for remote teaching to be conducted several weeks in a row for the pupils. It was most common that face-to-face instruction and remote teaching were alternated weekly. For some pupils, face-to-face instruction and remote teaching were alternated during the same week.<sup>50</sup>

### **Extent of remote teaching during the 2021 autumn semester and 2022 spring semester remains to be determined**

Remote teaching was no longer recommended for upper-secondary pupils during the 2021 autumn semester. The possibility for organisers themselves to arrange

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<sup>50</sup> Statistics Sweden (2022). *Fjärr- och distansundervisning i grund- och gymnasieskolan under coronapandemin* [Remote teaching in the compulsory and upper-secondary schools during the coronavirus pandemic].

remote teaching under certain conditions remained, however, a bit into the 2022 spring semester – until 1 April. After this, it was no longer permitted to conduct remote teaching pursuant to the Ordinance on education in the school and other pedagogical activities during the spread of certain infection. In an upcoming report, which will be published in March 2023, Statistics Sweden will present statistics on the extent of remote teaching during autumn 2021 and spring 2022.

## Changed governance of the education system

Swedish crisis management is based, among other things, on the so-called ‘responsibility principle’, which means that the person who is responsible for an activity in normal situations also has corresponding responsibility in the event of disruptions in society.<sup>51</sup> This has placed demands on the school organisers to quickly find solutions that work for their schools during the pandemic. At the same time, the pandemic was an exceptional situation for the governance of the education system, with several changes that together meant increased central governance.

A clear change was the ordinance<sup>52</sup> that in various ways made it possible to ensure pupils<sup>53</sup> their right to education if it was not possible to conduct activities due to the pandemic. Another example is the law<sup>54</sup> that made it possible to temporarily close schools or other activities pursuant to the Education Act in the case of extraordinary events in peacetime. The education system was governed during the pandemic through these changes and through additional control measures, which are described in more detail in Appendix 1.

Yet another change in governance concerned the actualisation of new governance actors in the education system. This concerned increased governmental control through the actualisation of other authorities than the usual within the education system, but also through the regional infection control agencies.

### **The Public Health Agency and the regional infection control agencies became new central governance actors**

In the Swedish administrative model, the Government delegates many state administrative duties and the operative responsibility for various areas to the public authorities. This has meant that expert knowledge is largely located there rather than in the Government Offices.<sup>55</sup> During the pandemic, the Public Health Agency of Sweden therefore became a central governance actor within the

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<sup>51</sup> Chapter 2, Section 8 of the Education Act (2010:800) states that it is the organiser that is responsible for ensuring that the education is carried out in accordance with applicable law. More information about the responsibility principle is available in SOU 2022:10 *Sverige under pandemin* [Sweden during the pandemic] and at Krisinformation.se (2022). *Krishanteringens grunder* [The basics of crisis management].

<sup>52</sup> Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections was issued on 13 March 2020.

<sup>53</sup> Pupils in preschool class, compulsory school, compulsory school for pupils with intellectual disability, compulsory special needs school, Sámi school, upper-secondary school, and upper secondary school for pupils with intellectual disability. Adult education at upper-secondary level (Komvux) was covered by other provisions, primarily those which applied for workplaces.

<sup>54</sup> Act (2020:148) on the temporary closure of school activities in extraordinary events during peacetime.

<sup>55</sup> SOU 2022:10.

education system. Among other things, by it making several central decisions in its expert role. For example, the Public Health Agency decided in March 2020 to recommend that teaching in all of the country's upper-secondary schools, adult education at upper-secondary level, higher vocational education, and higher education institutions should be conducted remotely. The Public Health Agency also decided on regulations and general guidelines that had a large impact on society as a whole. For example, special advice for workplaces was adopted, which included ensuring that staff kept their distance from each other and worked from home. The entire society was also subject to special advice on personal responsibility and was recommended to, e.g., be careful with their hand hygiene and to keep a distance from other people, which is also described in more detail in Appendix 1.

Through their daily press conferences, the Public Health Agency was also a central communication channel for other public authorities. For example, through the Swedish National Board of Health and Welfare and the Swedish Civil Contingencies Agency, but also the Swedish National Agency for Education, participating in the daily press conferences. The National Agency for Education, for example, announced there that the national tests would be cancelled.<sup>56</sup> The role of the National Agency for Education was mainly to support organisers and staff in the schools with coping with the pandemic and collecting and communicating information about the education system that could also be used by other public authorities to reach out with their information. The role of the Swedish National Agency for Education is described in more detail in the chapter *The supporting work of the school authorities*. It is, however, the view of the National Agency for Education, based on the authority's consultations, that it was common to turn to the Public Health Agency to retrieve information about what was happening in the education system.

Other public authorities also became more relevant for the school, such as the Swedish Work Environment Authority, to which employers needed to report cases of COVID-19. The Social Insurance Agency also took on increased relevance through the benefits that the infected, among others, were entitled to.

When the regional infection control agencies were given increased authorities to announce regional restrictions, they also became central actors in their respective regions. This change meant that infection protection measures such as switching to remote teaching, could be adapted to how the spread of infection was developing in that region. Yet it also came to mean additional governing signals for the school organisers and activities to manage and relate to. The section *Changed governance affected conditions for organisers and principals* describes the consequences brought by the changed governance of the education system during the pandemic.

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<sup>56</sup> Svt.se (2020). *Nationella proven ställs in* [National tests cancelled] and Skolverket.se (2020). *Vårens nationella prov ställs in* [This spring's national tests cancelled].



## Cancelled national tests

National tests are conducted in mathematics, Swedish, Swedish as a second language, and English in school years 6 and 9 of compulsory school, as well as in upper-secondary school and in adult education at upper-secondary level (Komvux). In school year 9, national tests are also conducted in the social science and natural science subjects. In school year 3, national tests are only conducted in mathematics and Swedish or Swedish as a second language. National tests are also conducted in Swedish for immigrants (SFI) and adult education at upper-secondary level (Komvux).

Due to the spread of infection, the National Agency for Education decided at the end of March 2020 to cancel the remaining national tests during the spring semester. The decision was justified, among other things, by the pressurised situation the schools were under and that the high absences among pupils and staff carried a risk that the tests would not be able to be carried out as intended.<sup>57</sup> The national tests were conducted as usual during the 2020 autumn semester, but in December the National Agency for Education once again decided to cancel the tests for the 2021 spring semester, with the exception of the tests in primary school year 3. The purpose of the cancellations was, among other things, to reduce the workload and ease the work situation caused by the pandemic for staff.<sup>58</sup>

To support the assessment of the pupils' knowledge development, the National Agency for Education prepared grade-supporting assessment aids in all subjects for which the national tests were cancelled in the 2021 spring semester. These assessment aids were voluntary to use and were available via the National Agency for Education's e-service for assessment support.

The National Agency for Education's autumn 2021 survey of organisers shows that many organisers decided to use the Agency's grade-supporting assessment aids.<sup>59</sup> A majority of the teachers in the upper-secondary schools also report that they used the National Agency for Education's assessment aids or other aids for assessment, such as older national tests or their own tests, as a substitute for the national tests.<sup>60</sup>

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<sup>57</sup> Swedish National Agency for Education (2020). *Vårens nationella prov ställs in* [This spring's national tests cancelled].

<sup>58</sup> Swedish National Agency for Education (2020). *Vårens nationella prov ställs in* [This spring's national tests cancelled].

<sup>59</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Interim report 4*. [The impact of the COVID-19 pandemic on the education system. Interim Report 4].

<sup>60</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

## Increased absence among staff, children and pupils

### Variation in absence between different forms of schooling during different periods of the pandemic

National absenteeism statistics are not available for the education system, and it is therefore impossible to state with certainty what absenteeism looked like during the pandemic. However, absenteeism in the education system was the subject of several of the follow-ups and surveys carried out by the National Agency for Education during the pandemic, which helps provide an overview of how absences changed during the pandemic.

The spread of COVID-19 led, along with recommendations to stay home with symptoms that could be due to COVID-19 and periodic recommendations to family-quarantine (to stay home if anyone in the household had COVID-19), also to an increase in absence due to illness among both pupils and staff. The extent of the absences varied depending on form of schooling and possibilities of receiving remote teaching in the event of absence. In compulsory school, teaching was mostly carried out on school premises, although it was periodically conducted remotely in the lower-secondary schools. In the upper-secondary schools, teaching was carried out remotely to varying extents. This in turn led to variations in the absence patterns depending on form of schooling.<sup>61</sup>

At the beginning of the pandemic, in March–April 2020, absences in the preschools, preschool class, school-age educare, compulsory schools and compulsory schools for pupils with intellectual disability were generally higher than usual among both pupils and children as well as staff. In the upper-secondary schools, which switched to remote teaching during the spring, absences decreased relative to the normal rates among both pupils and staff. In the upper-secondary schools for pupils with intellectual disability, however, the situation was more divided, with just as many organisers seeing a decrease in absences as those seeing an increase.<sup>62</sup> Attendance/study activity among pupils in adult education at upper-secondary level (Komvux) was also divided. Some organisers saw a decrease, while others saw an increase.<sup>63</sup>

In autumn 2020, the upper-secondary schools returned to conducting face-to-face instruction and there were signs in the beginning of the autumn semester of somewhat increased absenteeism among the pupils.<sup>64</sup> In adult education at upper-secondary level (Komvux), pupil absenteeism was largely unchanged, although

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<sup>61</sup> See section *Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools* for an overview of the scope of remote teaching during the pandemic.

<sup>62</sup> Swedish National Agency for Education (2020). *Undersökning av frånvaro bland personal och elever – Uppföljning för maj 2020* [Study of absenteeism among staff and pupils – Follow-up for May 2020].

<sup>63</sup> Swedish National Agency for Education (2020). *Coronapandemins påverkan på vuxenutbildningen – Insamling maj 2020* [The COVID-19 pandemic's impact on adult education – Collection May 2020].

<sup>64</sup> Swedish National Agency for Education (2020). *Lägesbild av situationen i gymnasieskolan med anledning av covid-19-pandemin – Insamling 21–25 september* [Overview of the situation in upper-secondary schools due to the COVID-19 pandemic – Collection 21–25 September].

there was variation between different groups of pupils (which is described in more detail in the next section).<sup>65</sup> Absenteeism statistics for the 2020 autumn semester from the organisers showed that one-fourth of the pupils in the preschool class and compulsory schools had a total absence rate of at least 15 per cent. For the upper-secondary schools, statistics from the Swedish Board of Pupil Finance (CSN) show that unapproved absences were lower than for the corresponding period of the previous year.<sup>66</sup>

In spring 2021, the National Agency for Education published results from several small-sample interview surveys carried out per form of schooling. The National Agency for Education also published absenteeism studies in the winter of 2021. The results show a varying picture of absences depending on form of schooling. In the preschools, responses from principals and organisers showed that staff absenteeism had been a varying problem. There was a widespread increase in absences among preschool children, although this generally increased more during the spring and summer of 2020 to then decrease somewhat in autumn 2020.<sup>67</sup> Corresponding studies in the compulsory schools<sup>68</sup> showed that pupil absences varied over time there as well, but were at generally high levels during the 2020 year and in the beginning of spring 2021. Longer periods of pupil absenteeism also seem to have become more common during the pandemic.<sup>69</sup> A majority of the organisers questioned also described higher pupil absenteeism than usual even during the beginning of the 2021 autumn semester. Staff absences were highlighted once again as a major problem.<sup>70</sup> As for the upper-secondary schools and upper secondary schools for pupils with intellectual disability, principals confirm the previous picture that absences among pupils and staff were not a major problem during the pandemic. However, there were signs of slightly increased absenteeism rates during spring 2021 among some groups of pupils.<sup>71</sup> In adult education at upper-secondary level (Komvux) as well, the previous, rather divided picture was confirmed of variation between pupil groups in terms of how much absences increased and study activity decreased (which is further developed in the next section, *Absences increased more among certain groups of pupils*).<sup>72</sup>

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<sup>65</sup> Swedish National Agency for Education (2020). *Lägesbild av situationen i komvux med anledning av covid-19-pandemin - Insamling vecka 41–42* [Overview of the situation in adult education at upper-secondary level due to the COVID-19 pandemic – Collection week 41–42].

<sup>66</sup> Swedish National Agency for Education (2021). *Nationell kartläggning av elevfrånvaro – De obligatoriska skolförhållandena samt gymnasie- och gymnasiesärskolan* [National survey of pupil absences – Compulsory and upper-secondary forms of schooling].

<sup>67</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Preschool] and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Preschool].

<sup>68</sup> The report from spring 2021 also includes compulsory schools for pupils with intellectual disability.

<sup>69</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability].

<sup>70</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School].

<sup>71</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema gymnasie- och gymnasiesärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Upper-Secondary School and Upper-Secondary School for Pupils with Intellectual Disability].

<sup>72</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema kommunal vuxenutbildning* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Municipal Adult Education].

In spring 2022, the National Agency for Education once again published studies, broken down by form of schooling, in which absenteeism, among other things, was addressed in slightly more depth than in previous reports. In the preschools, it was shown that absences shorter than two weeks had increased sharply (at nearly 9 in 10 preschools), but also that absences longer than this had increased according to half of the principals questioned. Previous results, that staff absences had increased in the preschools, was also confirmed.<sup>73</sup> For the compulsory schools, a larger selection of principals were asked to assess pupil absenteeism in the different semesters of the pandemic. About three in four principals assessed that pupil absences had increased in all semesters from the 2020 spring semester through the 2021 spring semester, while just over half made the same assessment for the 2021 autumn semester. Absences increased mainly in the lower school years.<sup>74</sup> Staff absences in spring semester 2020 and autumn semester 2021 were described as higher than normal by a great majority (nearly 8 in 10) of the questioned principals. But during the 2021 autumn semester, a majority (nearly 6 in 10) described staff absences as higher than normal.<sup>75</sup> In the upper-secondary schools, pupil absenteeism was somewhat more divided in the different semesters of the pandemic. The largest proportion of questioned teachers (between 3 and 4 in 10, depending on semester) assessed that absences had increased, but nearly just as many assessed that absences were unchanged.<sup>76</sup>

The National Agency for Education has also investigated how the increased spread of COVID-19 that occurred from December 2021 to March 2022 affected absences. Both pupil and staff absences were assessed to be higher by a majority of the questioned organisers. There were more organisers who assessed that absences had increased in the compulsory schools than in the upper-secondary schools.<sup>77</sup>

Many upper-secondary school teachers point out in the National Agency for Education's autumn 2022 survey<sup>78</sup> that absences still remain at high levels in comparison with before the pandemic. Although the results from the panel cannot be fully generalised, the National Agency for Education notes that the majority of teachers describe a high rate of absences due to illness, as the threshold for illness absence is lower than previously and pupils thereby report sick even for mild

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<sup>73</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>74</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>75</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>76</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>77</sup> Swedish National Agency for Education (2021). *Påverkan av covid-19-pandemin under december 2021 till mars 2022 - Lägesbild hos 85 huvudmän för grundskolan och gymnasieskolan 9 till 11 maj 2022* [The impact of the COVID-19 pandemic from December 2021 to March 2022 – Overview of the situation at 85 organisers for compulsory school and upper-secondary school 9 to 11 May 2022].

<sup>78</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

symptoms. A couple of teachers also describe an increase in scattered absences or that the pupils' attitudes toward absence has changed.<sup>79</sup>

## **Absences increased more among certain groups of pupils**

Although the increase in absences during the pandemic was generally due to the spread of infection and the recommendations in force, the National Agency for Education's results indicate that there have been differences between different groups of pupils in how the absence patterns looked during the pandemic.

### **Preschool**

In 2021, the National Agency for Education published a report in which a number of organisers, principals and preschool teachers were interviewed to gain more knowledge about how their activities were affected by the pandemic. The respondents highlighted that absences among certain groups of children had increased during the pandemic up to and including the time of the survey (March 2021). In addition to children with symptoms being kept at home in accordance with current recommendations, this also included guardians who kept their children at home due to worry of being infected. In a couple of cases, it was mentioned that unemployed guardians and guardians working from home had kept their children at home more (these people were in some cases encouraged to keep their children at home).<sup>80</sup> Also in the National Agency for Education's subsequent, and more extensive study, symptoms of illness in children were assessed to be one of the reasons for the increase in absences among preschool children during the pandemic, above all for absences of less than two weeks.<sup>81</sup> When it comes to longer absences (longer than two weeks), both symptoms of illness in the children and worry among the guardians were highlighted as explanations. The results also show that the demand for preschool placements has decreased among certain organisers, particularly large municipal authorities. This was stated to primarily be a consequence of guardians on parental leave choosing to be on leave longer than planned, but also that guardians who were laid off kept their children at home and that guardians in risk groups sometimes chose to postpone the start of preschool. The underlying causes were stated to be fear and anxiety. The results also show that it is more common that longer absences among children increased during the pandemic at the preschools in which at least three in ten children had foreign backgrounds, in comparison with preschools where a lower proportion of children have foreign backgrounds. Worry among guardians, as a reason for long absences among children, was also more common in preschools with a larger proportion of children with foreign backgrounds.<sup>82</sup>

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<sup>79</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

<sup>80</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Preschool].

<sup>81</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Preschool].

<sup>82</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

## Compulsory school

In the compulsory schools, it was reported at the beginning of the pandemic that absenteeism was greater among children in vulnerable areas or with less favourable socio-economic backgrounds.<sup>83</sup> Although absences are to some extent described as widespread due to prevailing recommendations concerning symptoms of illness, and therefore not entirely characteristic of any particular group of pupils, certain groups of pupils were highlighted as somewhat overrepresented. This has, for example, been linked to the existence of worry of being infected or risk group affiliation among both pupils and guardians. Pupils who had high absence rates before the pandemic have in certain cases had continued high absenteeism during the pandemic. But it has also been the case that absenteeism has been higher among newly arrived pupils or pupils with foreign backgrounds, as well as among socio-economically or academically weak pupils.<sup>84</sup> In a more comprehensive study of the entire pandemic up to November 2021, the results show a similar picture. The questioned principals assessed that absenteeism mainly increased generally among the pupils, but nearly as many assessed that the increase pertained to pupils who previously had high absence rates. Absences also increased among individual pupils (without any particular pupil group affiliation). There were fewer who assessed that absences increased among pupils in need of support or adaptation in teaching, as well as among newly arrived or linguistically weak pupils.<sup>85</sup>

## Upper-secondary school

In the upper-secondary schools, there were indications that absences in the beginning of the pandemic particularly increased among newly arrived pupils and among Swedish-born pupils with less favourable socio-economic backgrounds. There was also increased absenteeism among pupils who had difficulties using digital tools or finding a positive and peaceful study environment and motivation in the home.<sup>86</sup> In the latter part of 2020, there were signs that absences were increasing in particular among pupils in the introductory programmes, including for pupils in language introduction. At the same time, there were signs of increased absences among pupils who had been absent more often during the pandemic, for example pupils with long-term absences and pupils with mental illness.<sup>87</sup> In interviews conducted in spring 2021, it did not emerge that any specific groups of pupils stood out as particularly absent during the pandemic up

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<sup>83</sup> Swedish National Agency for Education (2020). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning augusti 2020* [The impact of the COVID-19 pandemic on the education system. Interim Report August 2020].

<sup>84</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability]. and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School].

<sup>85</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>86</sup> Swedish National Agency for Education (2020). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning augusti 2020* [The impact of the COVID-19 pandemic on the education system. Interim Report August 2020].

<sup>87</sup> Swedish National Agency for Education (2020). *Lägesbild av situationen i gymnasieskolan med anledning av covid-19-pandemin - Insamling 21–25 september* [Overview of the situation in upper-secondary schools due to the COVID-19 pandemic – Collection 21–25 September].

to that point in time.<sup>88</sup> The subsequent study described a more divided picture. Among other things, it was described that absences among pupils who had high levels of absenteeism before the pandemic both increased and decreased during the pandemic.<sup>89</sup>

### **Komvux**

In adult education at upper-secondary level (Komvux), the National Agency for Education saw early in the pandemic that attendance and study activities decreased among pupils in, above all, Komvux in Swedish for immigrants and Komvux as special education. It was the academically weak pupils in particular who had altered patterns of absence. At the same time, there were in some cases increased attendance and study activity among certain groups of pupils in Komvux, for example due to the increased flexibility that remote teaching entails.<sup>90</sup> Initially in autumn 2020 and at the beginning of 2021, the picture remained that it was primarily pupils in Komvux in Swedish for immigrants (SFI) and Komvux as special education for which absences increased.<sup>91</sup> Illness absences were to some extent a challenge in SFI during the spring of 2021.<sup>92</sup> In an in-depth study of Swedish for immigrants conducted by the National Agency for Education in 2022, absences were once again described as more common during the pandemic, although there have been variations.<sup>93</sup>

### **Regional differences in the spread of infection and notifications of serious incidents**

As mentioned above, national absence statistics for the education system are not available. To gain some understanding of how absences have looked and differed between different regions, the Public Health Agency of Sweden's statistics on the spread of COVID-19 are shown below.<sup>94</sup> The Swedish Work Environment Authority's statistics of serious work environment incidents in the education sector, including incidents due to COVID-19, are also shown, by region.<sup>95</sup>

### **The Public Health Agency of Sweden's regional spread of infection statistics**

During the COVID-19 pandemic, the Public Health Agency of Sweden was responsible for compiling statistics on the spread of COVID-19 in Sweden.

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<sup>88</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema gymnasie- och gymnasiesärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Upper-Secondary School and Upper-Secondary School for Pupils with Intellectual Disability].

<sup>89</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>90</sup> Swedish National Agency for Education (2020). *Coronapandemins påverkan på vuxenutbildningen – Insamling maj 2020* [The COVID-19 pandemic's impact on adult education – Collection May 2020].

<sup>91</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema kommunal vuxenutbildning* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Municipal Adult Education].

<sup>92</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>93</sup> Swedish National Agency for Education (2022). *Kunskapsstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].

<sup>94</sup> Public Health Agency of Sweden's statistics.

<sup>95</sup> Swedish Work Environment Authority's statistics.

Although it was mandatory to report cases of COVID-19 under the Communicable Diseases Act, the obligation to report the disease differed in practice.<sup>96</sup> There have also been changes in testing for COVID-19, which varied over time and between regions. All changes and limitations in the reporting obligation and testing capacity have influenced how many cases of COVID-19 have been registered. The Public Health Agency has also used other survey methods to measure the occurrence of COVID-19 in the population.<sup>97</sup> The results from these surveys have in some cases also been included in the statistics. For 2020 and 2021, one case of COVID-19 per individual and 12-month period are reported. For 2022, the period is six months.<sup>98</sup>

The map in Figure 3 shows the number of cases of COVID-19 per 100,000 residents, per county, from 2020 to 2022 (week 35). As the map in Figure 3 shows, the number of cases of COVID-19 per 100,000 residents was at least around 19,200 (in Blekinge County) and at most around 32,000 (in Halland County). In Stockholm, Västra Götaland and Skåne counties, the number of confirmed cases per 100,000 residents was somewhere between around 24,700 and 25,400. As previously mentioned, testing capacity varied over time and between different regions, so the statistics do not necessarily reflect the actual number of infected individuals per 100,000 residents.

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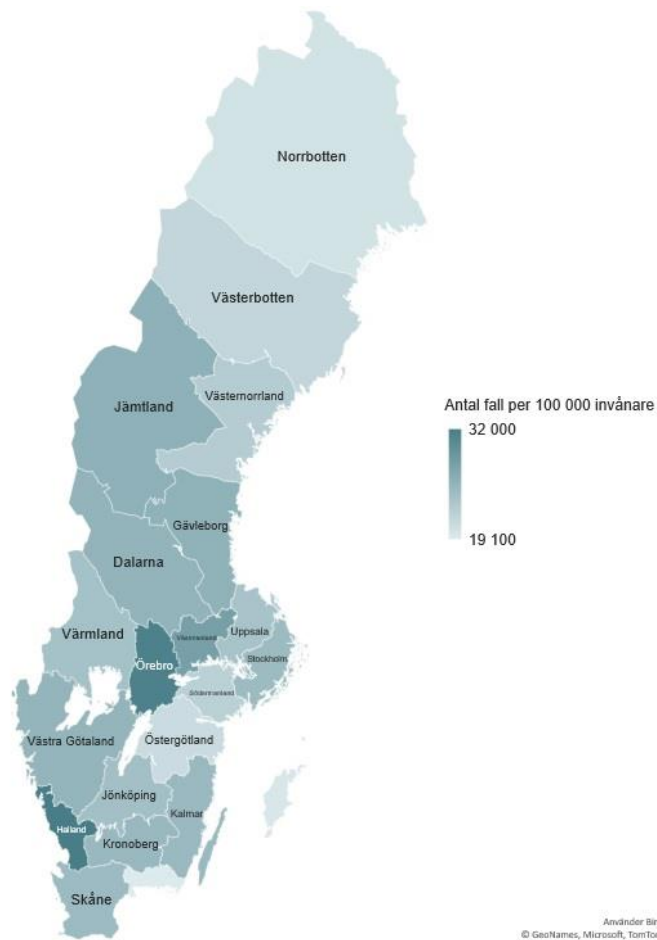
<sup>96</sup> Initially in 2020, it was mandatory to report all cases of COVID-19 that were diagnosed via a laboratory or treating physician. This was limited on 27 March 2020 to only apply to individuals who were hospitalised or treated at hospitals as well as individuals at special homes for the elderly. On 5 May 2020, the reporting obligation was removed at a national level, but remained in force in some regions. The clinical reporting obligation was reintroduced nationally on 1 October 2020, and on 26 November of the same year, antigen tests were also included in the case definition.

<sup>97</sup> Public Health Agency of Sweden (2021). *Beskrivning av datakällor för övervakning av covid-19* [Description of data sources for monitoring of COVID-19].

<sup>98</sup> Public Health Agency of Sweden's statistics.



**Figur 3.** Total number of confirmed cases of COVID-19 per 100,000 residents 2020–2022, per county.



The total number of confirmed cases of COVID-19 per 100,000 individuals has been summarised for the years 2020–2022 (up to and including the 35th week of 2022). Lighter colours represent a lower number of confirmed cases and darker colours a higher number. The Public Health Agency’s data uses regions as a geographic demarcation. In the map above, however, they are referred to as counties to permit comparison with Figure 4. Regions and counties refer to the same geographic area. Source: Public Health Agency of Sweden

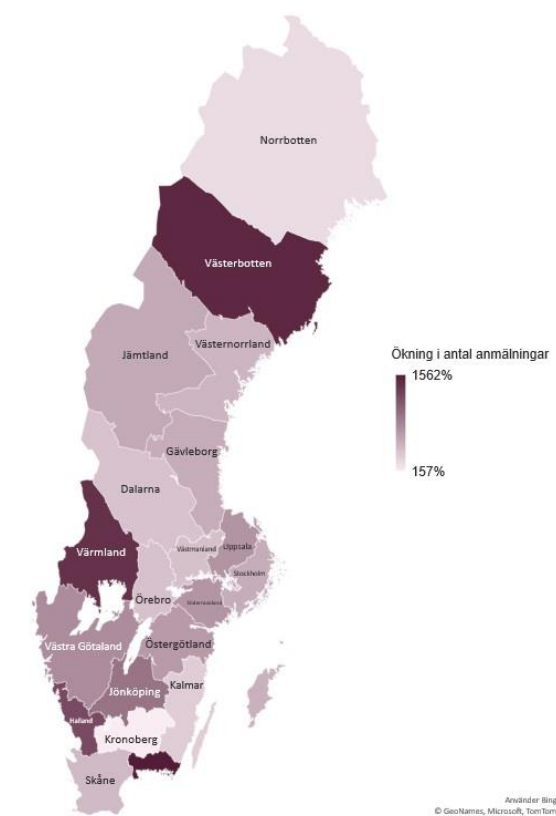
### **The Swedish Work Environment Authority’s reports of serious incidents within the education system**

Pursuant to Chapter 3, Section 3a of the Work Environment Act (1977:1160), employers are obligated to immediately report serious incidents, i.e., events involving serious danger to life and health, to the Swedish Work Environment Authority. One report represents one incident, and not one individual. However, several individuals may be involved in a single report. Because COVID-19 was classified as a disease dangerous to society, it was, from 2 February 2020 to 31 March 2022, mandatory for employers to report to the Swedish Work Environment Authority cases of illness or injury that occurred due to infection at the workplace. The number of reports of serious accidents and incidents<sup>99</sup> increased in the area of education in all counties in Sweden during the years 2021–2022 in comparison with the years 2017–2020. For 2020, the reports were in line with previous years due to the fact that employers were not asked to report

<sup>99</sup> Work Environment Act (1977:1160), Chapter 3, Section 3a.

that they were exposed to COVID-19 infection unless they were working in the healthcare sector. However, the total number of reports increased in 2021 and 2022, largely due to the spread of COVID-19.

**Figur 4.** Increase in the number of reports of serious incidents in the education system from 2017–2020 to 2021–2022, per county.



This map shows the increase in the number of reports of serious incidents received by the Swedish Work Environment Authority, regardless of reason for the report. Lighter colours represent a smaller increase and darker colours a larger increase. This comparison is made between the average number of reports for 2017–2020 and the average number of reports for 2021–2022. The number of reports for 2017–2020 should represent a ‘normal number of reports’, while the number of reports for 2021–2022 shows what the situation was like during the COVID-19 pandemic. Source: Swedish Work Environment Authority.

As the map shows, the number of reports of serious incidents increased throughout Sweden. The increase was largest in Blekinge County, where reports increased by 1562 per cent. The smallest increase was in Kronoberg County, where it was 157 per cent. There was thus at least a doubling of the number of reports in all counties. In some countries, however, there was a more than tenfold increase. In Västra Götaland, the increase was 800 per cent, in Stockholm 587 per cent, and in Skåne 502 per cent.<sup>100</sup>

It is important to remember, however, that the number of reports does not represent the number of individuals who were affected or could have been

<sup>100</sup> In the comparison, 2020 was counted as a ‘normal year’ because the education system was not asked to report incidents due to COVID-19. The number of reports in 2020 did not significantly differ between counties overall, as compared to the years before the pandemic. The comparison is made by taking the average number of reports for the period from 2017 to 2020, and the average number of reports for 2021 to August 2022. The average for 2017–2020 was then subtracted from the average for 2021–2022. This difference was then divided by the average for 2017–2020. This results in the percentage increase in the average number of reports during the pandemic (from 2021, when reports were requested within the education system), as compared to before the pandemic.

affected at the time of the incident. The report could concern everything from one single individual to several hundred. This could also vary from county to county. What the reports represent is the number of incidents. The map thus shows that the number of reports of incidents that are to be regarded as serious incidents has increased to different degrees in different counties.

In this context, it should also be highlighted that the map shows the total number of incidents and not only those related to COVID-19. COVID-19 was, however, a very major reason for the increase in the number of reports within the education system during the pandemic. Although the education system includes many other activities and organisations than the school sector, the general tendency of a large increase in the number of reports also applies for the schools.

### 3. Great differences in the consequences of the pandemic for the education system

One of the clearest findings linked with the pandemic's impact on the education system are the large differences at the local and regional levels in terms of scope and consequences. As shown in the section *Increased absences among staff, children and pupils*, there have been great differences in the spread of infection and subsequent absences in the education system within different regions. While some regions had consistently high contagion and absence rates during the pandemic, other regions were only affected to a lesser extent and for shorter periods of time. Linked to this, there have been great regional differences in the extent of remote teaching provided, primarily from December 2020 and during the spring semester of 2021. The recommendation during this period was that the upper-secondary schools should conduct teaching remotely for 20–80 per cent of the pupils' teaching hours, based on the local infection situation. Both regional and local application and governance, as well as the local infection situation, contributed to the differences in the amount of remote teaching becoming increasingly larger the longer the pandemic lasted. The strong spread of contagion that followed from the end of 2021 to spring 2022 further contributed to the differences in the prevalence of remote teaching and absenteeism. There were also differences between pupils in terms of when in their education periods of impact on learning and well-being occurred.

The different levels of the school system also give a clear picture of an uneven influence on the quality of the education and on the pupils' knowledge development and well-being during the pandemic, which is addressed in the following section. Both the Swedish National Agency for Education and the Swedish Schools Inspectorate's studies show that many organisers, principals and teachers report that there were many schools, preschools and adult education at upper-secondary level (Komvux) organisations that experienced no, or only very minor, impact during the pandemic. Yet there are many others who state that there has been a major impact on the teaching and on the learning and well-being of the children and pupils. The following section examines the consequences that the pandemic has had for the education system. In this analysis, it is important to bear in mind that the impact in different areas differs between and within schools, preschools and other organisations.

Chapter 9 presents a more in-depth discussion of crucial differences that have existed in the organisations' conditions for coping with the challenges of the pandemic, which has resulted in differences in the ways the pandemic has impacted schools and pupils. These include challenges in giving pupils equitable education and in the ability to compensate for their different conditions. This has led, among other things, to large differences in the technical solutions and study

resources that have been available in the organisations, and in the abilities to use these. This has also affected the schools' abilities to work with the school's compensatory mission.

## Challenge to maintain teaching quality

The extensive spread of infection and the restrictions and recommendations that applied during the pandemic to limit the spread of infection meant, as previously described, increased absenteeism among both pupils and staff in comparison with pre-pandemic rates. Along with remote teaching, this radically changed the conditions for carrying out teaching within all forms of schooling. The National Agency for Education's studies indicate that these factors, depending on local extent and the schools' starting position before the pandemic, presented a challenge in maintaining the quality of teaching during the pandemic.

### **Absences and restrictions impacted face-to-face instruction**

#### **In preschools and compulsory schools in particular, the increase in absences among children and pupils in many cases adversely affected face-to-face instruction**

In addition to the fact that the extensive absences among children in preschools affected the development of individual children, groups of children and the education as a whole were also affected. Several preschool principals highlighted that some course components took longer to carry out because they needed to be repeated or that social interaction in the group of children was affected.<sup>101</sup> In the compulsory schools, slightly more than two in three teachers in the National Agency for Education's autumn 2021 survey reported that pupil absences affected the teaching. Several teachers reported that high absenteeism among pupils presented difficulties for the teachers in planning their lessons. The teachers describe, among other things, that they needed to plan based on several different scenarios depending on how many pupils might be expected to be in attendance. When a lot of pupils had been absent in different rounds, there became less continuity in the teaching because teachers needed to devote a lot of time to repeating reviews or waiting to introduce new course components. Many teachers also had remote teaching in parallel with face-to-face instruction and needed to plan and follow up on homework for the pupils who were absent. It was also described that it was demanding to support those pupils who had high rates of absenteeism and to monitor to ensure that each pupil had learned what they should have. Several teachers also report that it was difficult to provide enough for those pupils who need special support.<sup>102</sup>

In the upper-secondary schools, pupil absences affected face-to-face instruction in a similar way as in the compulsory schools during the periods in which remote

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<sup>101</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>102</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

teaching was less prevalent. This applied largely from the autumn semester of 2021 and onwards. Above all, the double planning that is often required for face-to-face instruction and remote teaching entailed an increased workload, which affected the teachers' ability to plan their teaching and to give pupils both in the classroom and participating remotely sufficient support and stimulation.<sup>103</sup> All in all, pupil absenteeism in many schools made it more difficult for teachers to plan and carry out the instruction as intended while maintaining quality. Yet there are also some teachers who feel that the often-smaller groups of children and pupils during the pandemic provided greater opportunity for planning and reflection and that there was a greater possibility of giving support to the pupils who were in attendance.<sup>104,105</sup> This shows the complexity involved in assessing the impact of pupil absences. There have also been great regional and local differences in the extent to which pupil absenteeism has impacted the quality of face-to-face instruction.

### **High staff absenteeism one explanation for deterioration in quality of face-to-face instruction**

In the preschools, nine in ten principals assess that staff absences adversely affected teaching quality during the pandemic. It often affected the ability to conduct the planned teaching and to plan and follow up on the teaching based on the objectives of the curriculum with the same quality as usual.<sup>106</sup> In the National Agency for Education's surveys, it was described that lessons in the compulsory and upper-secondary schools were sometimes cancelled because the teacher was absent and it was not possible to get substitute teachers or because it was not desirable to bring in new staff to the school due to the risk of infection. At other times, the school brought in substitute teachers who could not complete the course components that the regular teacher had planned for. Many teachers describe that they were forced to re-plan their teaching on short notice when they needed to substitute for absent colleagues and some teachers mention that they have taught in subjects or school years that they don't normally teach in. Many also describe that they needed to use planning time and breaks to substitute for colleagues or to adapt their own lessons to the current situation. Several teachers state that in times of high staff absences, it was more difficult to divide the pupils up into smaller teaching groups, which had consequences for pupils in need of support.<sup>107</sup> Staff absenteeism was also assessed to be one of the most important contributing factors for the increase in workload; also see section *Strained working environment for many teachers*. The increased workload has, according to many

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<sup>103</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>104</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>105</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic] and Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>106</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>107</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

teachers, in turn contributed to them having less time for their own teaching and less time for documentation and planning. Together, these have all had a negative impact on the quality of face-to-face instruction.<sup>108</sup>

### **Practical course components and cooperation difficult to implement due to restrictions**

The restrictions and recommendations during the pandemic regarding keeping distance from other people and reducing crowding affected the possibilities of carrying out certain teaching elements and thereby influenced the quality of face-to-face instruction. In the compulsory and upper-secondary schools, this often involved course components such as swimming instruction, indoor sports, choir, laboratory sessions, study visits, and work experience placements. Language instruction, where it is common for pupils from different classes and schools to be mixed, was also affected. Teaching elements and activities aimed at cooperation, such as sponsor activities, group work, theme days, class trips, school dances, assemblies and graduations, also often had to be cancelled or altered.

The teachers in the National Agency for Education's surveys also describe how they had to devote a lot of time to complying with the restrictions, such as airing the classroom, avoiding crowding in the classroom and wiping down desks and instruments, which took time from teaching. Teachers further describe that the rotating instruction, which alternated between remote teaching and face-to-face teaching, affected in-school instruction because there are a lot of practical course components that had to be done when the pupils were in school. Many teachers also express that they were worried about being infected during the pandemic, which affected how they approached the pupils. Several feel, for example, that it was difficult to give pupils support when they couldn't be physically close to the pupils.<sup>109</sup>

In the preschools, the restrictions led to cancelled cultural activities and increased time outdoors, which affected the quality of the teaching. The majority of principals in the National Agency for Education's surveys stated that cancelled outings and cultural activities, such as visits to museums and libraries, had a negative impact on the teaching. Although the increased time outdoors during the pandemic was often experienced as positive, it made certain teaching elements, such as drawing, cutting, working with beads and the use of certain digital tools, more difficult. Among the preschools in which the children often ate outdoors, the children have not developed in their ability to eat with a knife and fork, according to the principals.<sup>110</sup>

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<sup>108</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>109</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic] and Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>110</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

## Often lower quality in remote teaching

One of the most sweeping changes in the education system during the pandemic was the transition to remote teaching in the compulsory school's lower-secondary grades and in the upper-secondary schools, as well as the increased extent of remote teaching in the adult education at upper-secondary level schools (Komvux). This primarily concerned various forms of teaching in which pupils and teachers were separated in space but not in time, although there were also cases of teaching in which pupils and teachers were separated in both time and space; see section *Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools*. The transition happened quickly, and it was difficult during the pandemic to predict how long the periods of remote teaching would last.

## Difficult to achieve the same quality as with face-to-face instruction

Both the Swedish National Agency for Education and the Swedish Schools Inspectorate have monitored the consequences of remote teaching during the pandemic. Overall, the view of these public authorities is that remote teaching during the pandemic often meant lower teaching quality in comparison with face-to-face instruction, particularly in forms of schooling in which experience of this type of teaching was limited.<sup>111</sup> The impact on the quality of the teaching was dependent on the extent of the remote teaching and the starting position of the organisations at the time of the transition to remote teaching.

According to the upper-secondary teachers who responded to the National Agency for Education's autumn 2021 survey, carrying out teaching was challenging during the periods in which it was conducted remotely, and around half of the teachers describe that remote teaching worked rather poorly for the pupils.<sup>112</sup> This picture is confirmed by over two in three upper-secondary pupils in the Schools Inspectorate's pupil survey, who state that they usually learn more from teaching on school premises.<sup>113</sup> The Schools Inspectorate's remote inspections showed, overall, that even if the situation for some pupils meant greater flexibility and better conditions for learning and attendance, remote teaching for the majority of the pupils often meant lower quality in the teaching and poorer opportunities for learning in comparison with face-to-face instruction. This applied above all in the lower-secondary levels of the compulsory schools and in the upper-secondary schools, but also in some parts of adult education at upper-secondary level (Komvux), such as Swedish for immigrants, which was particularly impacted.<sup>114</sup> The Schools Inspectorate assessed that the lower quality of remote teaching was often connected to:

- Less activity and participation in the lessons

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<sup>111</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>112</sup> Swedish National Agency for Education (2022). *Kunskapsstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>113</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>114</sup> Swedish National Agency for Education (2022). *Kunskapsstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].



- Poorer access to support and stimulation
- Poorer study motivation and focus
- Less skills training and less opportunity for training in authentic situations

The Schools Inspectorate points out that the interaction that normally occurs in a classroom has been difficult to achieve remotely and the overall picture is that the pupils ask fewer questions, that it is difficult to get discussions started, and that there is more solitary work, which results in the pupils feeling that they are learning less. Remote teaching also makes it more difficult for the teacher to notice the pupils' activity during the lesson and to detect and meet pupils' needs for both support and stimulation. Many pupils described that they had more difficulty getting the teacher's attention and understanding the explanations provided, and that they got stuck on assignments and couldn't progress further.

In many cases, it has been experienced as challenging to carry out assignments with sufficient depth and complexity remotely. Remote teaching has also often been characterised by the fact that it has been difficult to create variation in the teaching, which for several pupils has led to lower motivation and study concentration. The greater focus on theoretical teaching elements during remote teaching has affected many subjects in which practical and theoretical course components are usually alternated. For example, it has been a challenge to conduct laboratory sessions and various exercises in the subject Physical Education and Health. The Schools Inspectorate also assessed that it was difficult to conduct work experience placements and internships of good quality. The possibilities to consolidate the pupils' knowledge through quantitative practice and skills training in authentic situations were thereby impaired, according to the Schools Inspectorate.<sup>115</sup>

The National Agency for Education's teacher survey gives a similar picture. The responses describe that there were no major challenges in sharing study materials with pupils, informing and maintaining contact with the pupils and their guardians, and in sharing practical information. Things were also felt to have worked well in regard to the pupils' opportunities to ask questions during class time and to carry out lectures and reviews. What, according to the teachers, worked less well was getting pupils involved and engaged during class time, conducting practical teaching elements, and varying the teaching. A large proportion of the teachers also answered that it did not work well to satisfy the pupils' rights to receive special support and to give pupils extra adaptations as needed in connection with remote teaching.<sup>116</sup>

In all, remote teaching as a type of instruction has in many cases made it more difficult to conduct teaching of the same quality as in face-to-face instruction. This has affected the school subjects to different degrees depending on the nature of the subject. Subjects based on a great deal of interaction or practical course

<sup>115</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>116</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

components, such as language subjects and aesthetic subjects, have suffered. Likewise, subjects in which it has been difficult for the teachers to monitor the pupils' study needs remotely have been affected. Mathematics is a clear such example. The above-described often lower level of complexity in remote teaching also risks having a greater impact in subjects that are of a cumulative nature and have effects on the pupils' knowledge development over a longer period of time. Groups of pupils in need of support were also affected by the poorer possibilities for this during remote teaching. The section *Knowledge development was affected in certain subjects and pupil groups* describes the impact on pupils' knowledge development in more depth. There are also positive experiences of new ways of working that developed during the pandemic and the large digital leap that took place in the schools; see section *Digital leap during the pandemic*.

### **Access to technology and technical skills influenced the possibility of conducting remote teaching of good quality**

The School Inspectorate has highlighted that access to adequate technical solutions and the skills to use them varied greatly both between and within schools and that this has meant a risk of unequal access to teaching of good quality. The Schools Inspectorate could clearly see that the schools that were far ahead in the use of technology were more successful with the implementation of remote teaching and creating varied and interactive lessons.<sup>117</sup> There have also been large differences in the pupils' technical habits and access to functioning technology, which has affected the possibilities of giving pupils, above all in Swedish for immigrants, remote teaching adapted to their possibilities and needs.<sup>118</sup> There have thus been great differences in technical conditions and technical skills to both conduct and absorb remote teaching during the pandemic.

### **Hybrid teaching also made remote teaching more difficult**

When pupils needed to teach some pupils in the classroom while other pupils received their teaching remotely, it affected not only, as previously mentioned, the quality of face-to-face instruction but also the quality of remote teaching. During the pandemic, some pupils were exempted from the recommendation for remote teaching. This included pupils in the introductory programmes, pupils in upper secondary schools for pupils with intellectual disability, graduating pupils and pupils who needed to carry out practical course components or take examinations. Pupils who for various reasons were assessed to be vulnerable to remote teaching could also be exempted. Just over half of the upper-secondary teachers that responded to the National Agency for Education's survey state that they taught pupils during the pandemic who were exempted from remote teaching – more of these are vocational teachers rather than subject teachers – and a majority of these teachers describe that this was primarily carried out through hybrid teaching. Many teachers express that these hybrid forms worked less well

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<sup>117</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>118</sup> Swedish National Agency for Education (2022). *Kunskapstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].

and that the teaching suffered when teachers held mixed instruction. It was more fragmented and required more time and planning on the part of the teachers, with difficulties for the teachers to get an overview and to provide enough for all pupils.<sup>119</sup>

### **Swedish National Agency for Education's assessment**

The National Agency for Education's assessment is that pupil and staff absences contributed to lower quality in face-to-face instruction during the active phases of the pandemic. The magnitude of the impact, however, seems to have varied depending on how extensive and prolonged absences were locally during different periods of the pandemic. The National Agency for Education also assesses that absences have primarily affected the preschools and compulsory schools, as other forms of schooling were able to a greater extent during the pandemic to offer alternative forms of teaching in the event of absences. In addition to absences, restrictions have also affected the teachers' opportunities to devote time to teaching and to conduct teaching elements that could strengthen the complexity and depth of the teaching.

The National Agency for Education assesses that it has been difficult to conduct teaching remotely during the pandemic with the same teaching quality as the face-to-face instruction the pupils normally would have received. This has affected the school subjects to different degrees depending on the nature of the subject. The consequences of the deteriorated teaching quality depend, among other things, on how extensive the periods of remote teaching were locally and on the starting positions of the organisations at the transition to remote teaching. Both technical conditions and the ability of pupils and staff to use them have been crucial for conducting remote teaching of good quality. The National Agency for Education also assesses that the periods of hybrid teaching made it more difficult for teachers to create teaching of good quality for all pupils, even if it was positive for pupils to get as much access as possible to in-school teaching.

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<sup>119</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

## Knowledge development was affected in certain subjects and pupil groups

In several studies, the National Agency for Education has investigated to what extent the pandemic has affected the knowledge development of children and pupils at different levels in the education system. The overall picture based on the assessments of organisers, principals and teachers is that knowledge development has been affected unevenly during the pandemic and that it is primarily within certain areas of knowledge and certain groups of pupils that a loss of knowledge has occurred. This concerns, for example, pupils who had poorer conditions before the pandemic to meet the grading criteria, pupils whose guardians have short education backgrounds and pupils with native languages other than Swedish. The development of knowledge also seems to have been particularly affected in the language subjects, mathematics, and for practical subject elements. The key reasons for the loss of knowledge were that pupils were absent, or that remote teaching worked less well for the pupil or within the relevant subject. These results within each form of schooling are described below.

What does 'loss of knowledge' mean?

The National Agency for Education uses the term *loss of knowledge* to describe the situation in which the pupils, as a consequence of the pandemic, have not acquired the knowledge or skills they normally would have acquired.

### High absenteeism in preschools affected children's learning

Absences in the preschool were high during the pandemic, which is reported in the section *Increased absences among staff, children and pupils*. This high rate of absences among children and staff could have had negative consequences for the children's learning. In the National Agency for Education's autumn 2021 survey, four in ten principals reported that the children's conditions to develop in accordance with the goals deteriorated during the pandemic. Examples mentioned were that the ability to function in groups, to listen and to express one's own opinions might not have developed to the same extent as when the children are present in the preschools.<sup>120</sup> When the National Agency for Education asked the same question to organisers in 2021, responses varied between municipal and independent organisers. Half of the municipal and one-third of the independent organisers assessed that the children in their preschools received poorer possibilities to develop towards the objectives during the pandemic.<sup>121</sup>

The principals also highlighted that long-term absences had negative consequences for the children's language development. This particularly applied to the children who had another native language than Swedish and whose families

<sup>120</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>121</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisnings 4 – förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Theme Preschool].

do not speak Swedish at home. As mentioned in the section *Increased absences among staff, children and pupils*, longer absences were more common in preschools in which a larger proportion of children have foreign backgrounds. A slight majority of the principals also stated that the transition from preschool to preschool class worked less well during the pandemic, among other things in terms of information exchange between the organisations. In the survey, a worry was expressed that the pandemic's impact on children's language development and the transition between preschool and preschool class could have negative consequences on children's continued schooling.<sup>122</sup>

In the autumn of 2022, the National Agency for Education conducted a smaller interview study with teachers and principals in five schools with preschool class and school years 1–3, in which principals had previously assessed that there had been a loss of knowledge. The study shows that several principals and teachers feel that the pupils' conditions before the start of school had changed during the pandemic. In some cases, it was stated that the pupils did not have the same knowledge and skills with them from preschool as before. Above all, it was stated that there was an impact on the pupils' language development and development of social skills. Teachers and principals describe that, as a consequence of this, they have had to re-prioritise teaching in the preschool class and place a greater focus on strengthening the pupils' social skills.<sup>123</sup>

### **Absenteeism is assessed to have led to a certain loss of knowledge in compulsory schools**

In the National Agency for Education's autumn 2021 survey, teachers and principals assessed that there was some loss of knowledge in all of the compulsory primary and lower-secondary school years, but few assessed that the loss was great. The largest loss of knowledge was assessed to have occurred in the higher school years. Nearly half of the principals and six of ten teachers stated that there was some or great loss of knowledge in school years 8 and 9. Teachers felt that there was a greater loss than principals in all school years. The loss of knowledge in the compulsory schools was assessed to be relatively evenly distributed among different subjects, but somewhat more extensive in modern languages, mother tongue tuition, mathematics and Swedish.<sup>124</sup>

The high absenteeism rates in the compulsory schools during the pandemic were highlighted as a central explanation for the loss of knowledge.<sup>125</sup> In addition to pupils having missed lessons due to absences, there are also signs that the quality of the teaching was lower, due in part to high rates of absenteeism among the staff. It is likely that remote teaching contributed to some extent to the loss of

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<sup>122</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>123</sup> The results from this interview study are reported in Chapter 6.

<sup>124</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic] and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4 – Grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School].

<sup>125</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

knowledge in the compulsory schools, particularly in the lower-secondary schools. It is the assessment of the National Agency for Education, however, that it is primarily the absences that have affected the loss of knowledge because the compulsory schools mostly conducted their teaching on school premises.<sup>126</sup> There are also signs that the teaching was adversely affected during longer periods of alternating face-to-face instruction and remote teaching, above all because the transition was demanding for teachers.<sup>127</sup>

### **Pupils with poorer conditions were most affected**

The National Agency for Education's studies show that pupils who already before the pandemic had poorer conditions for meeting the grading criteria, such as pupils in need of support and pupils with less favourable socio-economic conditions, were hit particularly hard by the consequences of the pandemic. The group of pupils who are assessed to have had the greatest loss of knowledge were pupils with high numbers of absences. At the same time, it seems that the pupils who were most absent during the pandemic were often the same pupils who already had high rates of absenteeism before the pandemic and thereby poorer conditions to absorb the teaching. It was also assessed that pupils in need of extra adaptations and special support were affected to a greater extent by a loss of knowledge than other pupils. Pupils with another native language than Swedish were also assessed to have a greater loss of knowledge on average than other pupils.<sup>128</sup>

There seems to have been a link between loss of knowledge and the education level of legal guardians. Principals and teachers at schools in which a small proportion of the pupils have guardians with post-secondary education more often assessed that there was a loss of knowledge among the pupils. The differences are somewhat greater in school years 1–6 than in the lower-secondary schools (school years 7–9). There seems also here to be a link between loss of knowledge and foreign background. Teachers in schools with a high proportion of pupils with foreign backgrounds generally saw a larger loss of knowledge than teachers in schools with a lower proportion of pupils with foreign backgrounds. For the lower-secondary schools, there was also a negative correlation between pupil–teacher ratio and loss of knowledge, which indicates that schools with a high pupil–teacher ratio had better conditions to mitigate the consequences of the pandemic. In all, the results suggest that pupils at schools with less-favourable pupil compositions may have been hit particularly hard in their knowledge development during the pandemic.<sup>129</sup>

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<sup>126</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>127</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>128</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>129</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic]. As well as statistical analyses performed as basis for the report.

### **Efforts to deal with the loss of knowledge were not always sufficient**

A majority of the principals in the National Agency for Education's autumn 2021 survey reported that they had implemented initiatives during the pandemic to counteract a loss of knowledge in the compulsory schools. Examples of initiatives include 'holiday school' (extra instruction during school holidays), homework help and extra instruction for pupils who had been absent. Yet just under half of the principals assessed that the initiatives would be sufficient to counteract a loss of knowledge. This can be explained in part by the lack of qualified teachers and substitute teachers and by a lack of time to catch up on the teaching that could not be carried out. To handle the loss of knowledge, many principals in the National Agency for Education's study requested more resources to hire teachers, special needs teachers, supplementary support teachers and other staff, as well as support to increase teaching hours.<sup>130</sup>

### **Remote teaching affected knowledge development in the upper-secondary schools**

In the National Agency for Education's autumn 2021 survey, a majority of the principals and teachers responded that they saw a loss of knowledge in the pupils graduating in the spring of 2021. The majority also saw a loss of knowledge in the pupils who completed Years 2 and 3 of upper-secondary school in the autumn semester of 2021. In contrast to the compulsory schools, remote teaching was assessed to be the primary cause of the loss of knowledge in the upper-secondary schools. As described in the section *Challenge to maintain teaching quality*, about half of the teachers in the survey reported that remote teaching worked quite poorly for the pupils.<sup>131</sup> The Schools Inspectorate has also found that for the majority of the pupils who had received a larger amount of remote teaching, the situation meant deteriorated conditions for learning and knowledge development. Principals, teachers and pupils alike felt that the pupils learned less when the lessons were conducted remotely. The Schools Inspectorate and the National Agency for Education see that the pupils' own conditions in the form of motivation and support from the home, or through their own social networks, have greatly impacted the opportunities for learning and knowledge development when the teaching was conducted remotely, which is also reported in the section *Well-being of some pupils worsened during the pandemic*.<sup>132</sup> Another reason for the loss of knowledge has been that the teaching could not be fully conducted, which applies above all to many of the subjects that have practical elements.<sup>133</sup>

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<sup>130</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>131</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>132</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>133</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

## **Mathematics and other progression-based subjects particularly affected**

Teachers and principals in the National Agency for Education's autumn 2021 survey assessed that there was some loss of knowledge in all subjects in the upper-secondary schools, but that certain subjects particularly stood out. Just as in the compulsory schools, this chiefly concerns mathematics and modern languages, but also vocational subjects and subjects with practical and laboratory elements, such as physics, chemistry and biology. The loss of knowledge seems to be more problematic in the subjects that were conducted remotely to a great extent and in which the pupils' knowledge is largely built up cumulatively, i.e., where continuation courses largely assume a certain level of knowledge from the previous courses. This applies particularly to subjects such as mathematics and modern languages.<sup>134</sup> In the National Agency for Education's autumn 2022 interview study of teachers and principals, additional reasons for why mathematics in particular was affected during the pandemic were described. These include the fact that many pupils already before the pandemic felt that mathematics was a difficult subject and that many pupils needed the teacher to be available to provide support when the pupil was doing maths exercises. Mathematics also seems to be a subject in which some pupils have poorer self-confidence and are more afraid of failure than other subjects.<sup>135</sup>

## **Difficulties conducting work experience placements affected vocational subjects**

Loss of knowledge in vocational subjects linked with possibility of conducting work experience placements. Nearly half of the vocational teachers in the National Agency for Education's survey reported that the pupils could not, or could only to some extent, complete their work experience placements in 2020. It was particularly difficult to conduct work experience placements in the Handicrafts, Electricity and Energy, and Hotel and Tourism programmes. The difficulties decreased somewhat in 2021, but in autumn 2021 it was reported that it continued to be difficult to carry out work experience placements in several vocational programmes. Several vocational teachers described that they carried out work experience placements as equivalent education arranged at the school in 2020 and 2021, for example by constructing workshops and simulated workplaces on school premises.<sup>136</sup> It is important here to emphasise that work experience placements are usually, as a rule, conducted at an actual workplace.<sup>137</sup> The Schools Inspectorate has seen examples of pupils training to be bus drivers having to practice relating to customers and presenting a trip for their passengers in role plays at the school. Another way to solve practical elements was for the school to

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<sup>134</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>135</sup> The interview study is reported in Chapter 5.

<sup>136</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>137</sup> In Chapter 1, Section 3 of the Upper-Secondary School Ordinance (2010:2039), workplace-based learning is defined as 'learning in a programme that is conducted at one or more workplaces outside the school'. Under Chapter 4, Chapter 13, however, work experience placements can in certain circumstances be exchanged for equivalent instruction placed at the school.



send materials home to the pupils, such as a bag of food or hairdressing or make-up dolls, so that they could practice at home.<sup>138</sup> These examples show that there is a risk that pupils during the pandemic did not have the opportunity to develop knowledge, abilities or understanding in the same way as they would by learning at a workplace. The difficulties of carrying out work experience placements is a sign that there has been a loss of knowledge in at least some of the vocational subjects that are offered in the upper-secondary schools.

### **Greater loss of knowledge in certain pupil groups**

Although the responses of principals and teachers to the autumn 2021 survey suggests that a loss of knowledge occurred in all national programmes and in most subjects, not all pupils' knowledge development has been adversely affected during the pandemic. The consequences are of different magnitudes and have different implications for different pupils. Just as in the compulsory schools, the loss of knowledge was assessed to be greatest among those pupils who already had poorer conditions to absorb the teaching and achieve the grading criteria. This primarily concerns pupils with high absence rates and pupils in need of extra adaptations and special support,<sup>139</sup> and thus risks strengthening existing differences between the knowledge development of different groups of pupils.

Although pupils in the introductory programmes were exempted from remote teaching, the Schools Inspectorate has shown that remote teaching occurred even there in some cases, although with some flexibility that gave the pupils the possibility of also being in school. For pupils in language introduction, remote teaching meant that the pupils had a poorer language development in Swedish, above all in terms of verbal skills. Over half of the pupils questioned responded that it did not work well to have teaching remotely and that they learned more and had better practice in speaking Swedish when the teaching was in the school.<sup>140</sup> The National Agency for Education has also seen a loss of knowledge among newly arrived pupils and pupils with insufficient knowledge of Swedish.<sup>141</sup>

In the Schools Inspectorate's review of remote teaching, it also emerged that girls to a somewhat lower degree felt that their need for support was noticed by the teacher, and to a higher degree experienced poorer health as a result of remote teaching.<sup>142</sup> The National Agency for Education's autumn 2022 interview study with teachers and principals also found that girls as a group had been hit particularly hard during the pandemic. It seems to be more common that girls have lower study motivation in comparison with before the pandemic.<sup>143</sup>

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<sup>138</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>139</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>140</sup> Swedish Schools Inspectorate (2021). *Undervisning på distans på språkintröduktion* [Remote teaching in language introduction].

<sup>141</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>142</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>143</sup> The interview study is reported in Chapter 5.

### **Efforts do not seem to have been sufficient**

At most upper-secondary schools, efforts were made during the 2021/22 school year to counteract a loss of knowledge due to the pandemic. In most cases, this concerned extra adaptations and special support, staff reinforcements and holiday school. At the same time, many principals and teachers stated that the efforts will not be sufficient to fully counteract the loss of knowledge that has occurred. The efforts were limited due to a lack of economic and staff resources, but also because the hours and energy were not enough for teachers and pupils. Teachers in schools with a low pupil–teacher ratio saw somewhat greater obstacles for the efforts, in comparison with teachers at schools with a high pupil–teacher ratio. Half of the principals in the autumn 2021 survey expressed that there was a need for support or measures at the national level to counteract the loss of knowledge for pupils in the upper-secondary schools.<sup>144</sup>

### **Upper-secondary teachers see traces of the pandemic even in autumn 2022**

In the National Agency for Education’s survey of upper-secondary school teachers in autumn 2022, teachers describe residual effects of the pandemic in several upper-secondary schools.<sup>145</sup> This concerns both a remaining loss of knowledge and that certain pupils seem to have lost social skills and motivation, as well as that absences remain at a high level in comparison with before the pandemic. This is described further in section *Social skills have been affected in some cases*. Among the pupils who see residual effects in terms of knowledge, it is mentioned that pupils do not have the same basic knowledge with them from compulsory school. Some describe that the knowledge is not as ‘deep’, and that this applies particularly to mathematics, reading and languages.

### **In Komvux, pupils in Swedish for immigrants in particular had slower knowledge development**

Adult education at upper-secondary level (Komvux) was subject to a different regulatory framework than the compulsory schools and upper-secondary schools during the pandemic and therefore had longer periods of remote teaching. While there was a greater habit of studying remotely among several pupil groups within Komvux, there were also forms of schooling in which many pupils did not have this habit. When the National Agency for Education conducted a survey in autumn 2021 directed at all organisers for Komvux, only a few assessed that there had been a large loss of knowledge within Komvux at the basic level, while a large majority assessed that there had been some loss of knowledge. A similar picture – albeit a slightly more positive one – could be seen regarding vocational courses in adult education at the upper-secondary level and even slightly better still within other courses in adult education at upper-secondary level. For

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<sup>144</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>145</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers’ view of the pandemic’s effects and received about 250 responses. Only subject teachers were included in the panel.

Komvux as special education, most organisers stated that they didn't know if there had been a loss of knowledge, which makes the data too uncertain to draw any conclusions. There are examples, however, that some of the teaching within Komvux as special education was cancelled during the pandemic, due in part to the pupils being in a risk group. This indicates that there may have been a loss of knowledge in this group of pupils as well.<sup>146</sup>

Many organisers in the survey assessed that there was a loss of knowledge within Komvux in Swedish for immigrants (SFI). Nine in ten organisers answered that there had been a loss of knowledge in SFI during the pandemic, of which nearly four in ten assessed that there was a large loss of knowledge. This is explained, among other things, by the challenges associated with remote teaching, for example the pupils' habits of studying remotely, technical equipment in the home, digital competence and the study environment in the home.<sup>147</sup>

### **Less teaching time a reason for slower knowledge development in Komvux in SFI**

In spring 2022, the National Agency for Education conducted an interview study with five municipalities, which stated that there had been a large loss of knowledge within Swedish for immigrants (SFI). In the interviews with teachers and principals, a clear picture emerged that pupils, particularly in study paths 1 and 2, i.e., pupils with short previous education backgrounds, needed longer periods of time in their courses during the pandemic. The loss of knowledge in SFI thus seems to be about a slower knowledge development rather than that pupils have progressed in their studies without having acquired parts of their education, which is the case in other forms of schooling. This can also be seen on the national level, where the official statistics show that some courses in SFI have been dramatically extended during the pandemic. In the interviews, it emerged that pupils in study paths 1 and 2 have had difficulties studying independently at home and were therefore prioritised for face-to-face instruction in several smaller groups. This, in turn, led to the teacher resources being insufficient and the pupils in the studied organisations receiving around half of the regulated smallest amount of teaching time.<sup>148</sup> Pupils in study path 3 were assessed to have better conditions for studying at home, but even for these pupils, remote teaching was demanding, and many were affected by the lack of a positive and peaceful study environment at home.<sup>149</sup>

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<sup>146</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>147</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level]. Also see Swedish Schools Inspectorate (2021). *Fjärr-och distansundervisning vid kommunal vuxenutbildning. Iakttagelser baserade på intervjuer med rektorer och elever från 54 verksamheter under covid-19-pandemin* [Remote teaching in municipal adult education. Observations based on interviews with principals and pupils from 54 organisations during the COVID-19 pandemic].

<sup>148</sup> Education in SFI should, on average during a four-week period, comprise at least 15 hours of teaching a week. The extent of the teaching may be reduced, however, if the pupil requests this and the organiser finds that this is compatible with the purpose of the education. Chapter 20, Section 24 of the Education Act.

<sup>149</sup> Swedish National Agency for Education (2022). *Kunskapstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].

Less teaching time is described as the primary reason for the slower knowledge development. The quality of the teaching was also adversely affected, for example by the teaching materials being simplified and course components being removed. The pupils have above all had difficulties developing verbal skills during the pandemic, such as speaking, listening and conversing in Swedish. For some pupils, however, knowledge development in all areas was adversely affected.<sup>150</sup>

### **Risk of poorer quality in workplace-based learning**

Just as in the upper-secondary vocational programmes, Komvux vocational education and training organisations had difficulties arranging work experience placements during the pandemic. This was because not all workplaces received pupils in the same way as previously. The difficulties meant that the organisers in some cases needed to search for other workplaces or to carry out work experience placements as corresponding education on Komvux premises. There is a risk that this has affected the quality of work experience placements and that the pupils have not had the opportunity to develop knowledge, abilities and understanding to the same extent as with workplace-based learning.<sup>151</sup>

### **Some organisers saw a need for intervention efforts**

The organisers have implemented efforts to make up for lost knowledge and skills among the pupils, such as by loaning digital tools to pupils, providing increased access to supervision and support, extending courses and making changes in individual study plans and practical course components, as well as workplace experience placements that were carried out as corresponding education on Komvux premises. Some organisers also expressed that they saw a need for efforts at the national level. This primarily concerned efforts aimed at increasing support to pupils as well as government grants for extra costs linked to the pandemic.<sup>152</sup>

### **The pandemic can affect skills supply**

At the beginning of the pandemic, unemployment rose as a consequence of the new conditions brought by the pandemic.<sup>153</sup> This made the transition between school and working life more difficult for young people because sectors in which young people often get their first jobs were hit particularly hard by the pandemic. One example of this is that pupils who graduated from upper-secondary school in spring 2020 were employed to a lesser extent over the next six months than those who graduated in 2019.<sup>154</sup> The opportunities of young people to travel and study abroad were also severely limited. There is much to indicate that the pandemic

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<sup>150</sup> Swedish National Agency for Education (2022). *Kunskapsstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].

<sup>151</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>152</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>153</sup> Statistics from Statistics Sweden.

<sup>154</sup> Statistics Sweden (2021). *Inträdet på arbetsmarknaden under coronapandemin* [Entry into the labour market during the coronavirus pandemic].

will have both short- and long-term effects on young people's possibilities to establish themselves and advance on the labour market. Research has, for example, shown that young people who enter the labour market during periods of low economic growth and weak labour demand are exposed to excess risks of employment and prolonged weakened income development. During the pandemic, many more young people applied for education in Sweden in comparison with before the pandemic.<sup>155</sup> In 2020, the number of full-time pupils increased to the highest level since the measurements began.<sup>156</sup>

According to the official statistics, the number of pupils studying a vocational specialisation of at least 400 credits in adult education at upper-secondary level rose by 4 per cent between 2020 and 2021. The number of pupils increased in all programmes except in Vehicle and Transport, and in Heating, Water, Sanitation and Property Management. The Natural Resources Programme had the largest increase, with 34 per cent more pupils, followed by Hotel and Tourism, which increased by 27 per cent.<sup>157</sup> The number of pupils in vocational education and training had also been increasing before the pandemic, but this development seems to have strengthened in most vocational areas. However, there does not seem to be any clear link between the vocational areas in which pupil numbers are increasing and the sectors that were adversely affected during the pandemic, such as the hotel and restaurant sector, for example.

The National Agency for Education's survey directed at municipalities in autumn 2021 shows that more pupils applied for Komvux adult education at the upper-secondary level in 2021 than in 2019. This applied to all courses in adult education at the upper-secondary level, but particularly to vocational courses. At the same time, it emerged that several organisers could not meet the increasing demands for vocational courses within Komvux. For example, two in five organisers had more applicants than places in courses in Health and Social Care and in Child and Recreation during January–August 2021.<sup>158</sup> This could have a negative effect on skills supply. Even before the pandemic, there were challenges offering vocational education and training in adult education at the upper-secondary level,<sup>159</sup> but the pandemic seems to have strengthened this development. The National Agency for Education is tasked with continuously producing regional planning documentation and has been working since August

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<sup>155</sup> Forte (2022). *Sociala utmaningar för unga i spåren av pandemin, en forskningsöversikt* [Social challenges for young people in the wake of the pandemic – a knowledge overview] and IFAU (2022). *Barn och unga under coronapandemin* [Children and young people during the coronavirus pandemic].

<sup>156</sup> Statistics Sweden (2021). *Coronapandemin slog hårt mot arbetsmarknaden 2020* [Coronavirus pandemic hit the labour market hard in 2020].

<sup>157</sup> Swedish National Agency for Education (2022). *Elever och studieresultat i kommunal vuxenutbildning 2021* [Pupils and study results in municipal adult education 2021].

<sup>158</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>159</sup> Swedish National Agency for Education (2021). *Samlad redovisning och analys inom yrkesutbildningsområdet* [Compiled reporting and analysis in the area of vocational education], Swedish National Agency for Education (2020). *Skolverkets lägesbedömning 2020* [The Swedish National Agency for Education's assessment of the situation, 2020], Statistics Sweden (2017). *Trender och prognoser 2017* [Trends and forecasts 2017] and Swedish National Agency for Education (2022) *Underlag för planering och dimensionering av utbildning* [Documentation for planning and dimensioning of courses and study programmes].

2022 to produce and make this documentation available to support the organisers' planning, dimensioning and offering of upper-secondary education.<sup>160</sup>

Several studies show that study and career guidance has had limited possibilities to carry out its mission during the pandemic. In the upper-secondary schools and adult education at upper-secondary level, study and career guidance had to be conducted remotely and every fourth upper-secondary school headteacher assesses that the pupils to only some extent had access to the study and career guidance that they needed during the pandemic.<sup>161</sup> There were also indications in compulsory schools that study and career guidance had to take a back seat to some extent during the pandemic.<sup>162</sup> There is thus a risk that pupils' conditions to make informed and well-grounded educational and career choices have been adversely affected during the pandemic.

### Swedish National Agency for Education's assessment

Apart from the international knowledge measurements, there is a lack of measurements on the development of knowledge over time among Swedish pupils. This means that there is great uncertainty when it comes to assessing the pandemic's effect on pupils' knowledge. The National Agency for Education can, however, based on the assessments made by organisers, principals and teachers, state that the pandemic seems to have had a certain impact on the knowledge development of children and pupils, albeit to varying degrees depending on form of schooling.

The National Agency for Education assesses that the high absenteeism in the **preschools** has affected the children's possibilities to develop in accordance with the goals of the preschool, albeit to varying extents. The National Agency for Education sees, among other things, that some children have been hampered in their language development and have been less prepared for the start of preschool class.

In the **preschool class and compulsory schools**, pupil and staff absences in many cases had an adverse effect on the quality of the teaching and resulted in pupils missing instruction to a greater extent. This meant that many pupils did not acquire and develop the same knowledge and skills that they normally would have done. This particularly applies to pupils who already before the pandemic had poorer conditions to absorb the teaching, such as pupils in need of support and pupils with another native language than Swedish. The National Agency for Education therefore assesses that it is important to continue to monitor the pupils' knowledge development in the compulsory schools.

In the **upper-secondary schools**, the loss of knowledge seems to have been more pronounced, but not as general as in the compulsory schools. This is primarily

<sup>160</sup> Section 6a of Ordinance (2015:1047) with instructions for the Swedish National Agency for Education and Assignment (U2022/02828) on regional planning documentation.

<sup>161</sup> Swedish National Agency for Education (2022). *Kunskapsstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>162</sup> The Swedish National Agency for Education's target group dialogues with principals, teachers and organisers in autumn 2022.

because remote teaching is assessed to have worked less well for certain subjects, such as mathematics, modern languages and subjects with practical elements. Certain pupil groups were also assessed to have been affected more than others, which, just as in the primary and lower-secondary schools, involves pupils who had poorer conditions even before the pandemic to achieve the education goals.

**In adult education at upper-secondary level (Komvux)**, the pandemic is assessed to have above all affected the pupils' knowledge development in Swedish for immigrants (SFI). Several pupils in SFI have had their education period extended, which may have delayed their entry into the labour market and possibility of supporting themselves. The National Agency for Education would like to emphasise the importance of face-to-face instruction for many pupils in SFI and that digital tools are used in a way that promotes knowledge development.

In both Komvux and the upper-secondary schools, the difficulties of carrying out work experience placements may have affected the quality of the vocational education and training. At the same time, more pupils applied for courses and study programmes at the upper-secondary level in Komvux. The National Agency for Education believes that it is important that there are conditions to accommodate an increased number of applications in Komvux – particularly in industries experiencing a shortage of trained labour. This is urgent in order to accommodate future skills supply needs.

## Social skills have been affected in some cases

In addition to the impact that the pandemic had on pupils' knowledge development, an increasingly clear image is emerging that there has also been an impact on some pupils' social skills. These are trends that are becoming clear now that schooling has returned to normal again after two years of the pandemic.

### Cooperation and group activities more difficult

Although the compulsory schools have been permitted to conduct more teaching on school premises, this has been limited by various restrictions and pupil absence rates have been periodically high. When the compulsory schools returned to more normal conditions in autumn 2022, principals and teachers in the preschool class and primary school years 1–3 described that they perceive pupils as less mature than normal and that pupils lack certain social skills. This is shown in the National Agency for Education's interview study with teachers and principals in schools in which principals had previously assessed that there had been a certain loss of knowledge; see section *Certain impact on language development and social skills in pupils in preschool class and primary school years 1–3*. Principals and teachers describe that pupils lack some of the abilities they normally get from preschool, such as various 'play codes', sitting in a circle and walking in pairs. It was stated, for example, that more pupils in the preschool class than previously have difficulties with how to behave in groups, how to show consideration and how to wait for their turn. Principals and teachers also describe that conflicts are more common, that group dynamics are in some cases poorer, and that pupils have difficulties cooperating with each other. It is difficult to determine if these tendencies are solely a consequence of the pandemic, and to what extent they have arisen broadly in all organisations, but higher absenteeism and changed routines in the preschools due to the pandemic are highlighted as possible explanations.<sup>163</sup>

In the interview study, it was also described that de-prioritised values-based work during the pandemic has meant that the pupils are not as equipped socially. This is because the pupils have not had community-building activities such as theme days, sponsor systems, pupil councils, food councils, Lucia processions and graduations in the same way as before the pandemic. The classes being divided up more during the pandemic may also have entailed less community at the schools.

Upper-secondary school teachers in the National Agency for Education's autumn 2022 survey convey a similar picture as above.<sup>164</sup> The teachers describe a lack of familiarity with working in groups among the upper-secondary pupils, and that some pupils seem to want to avoid group work.<sup>165</sup> Teachers also describe that

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<sup>163</sup> See section *Certain impact on language development and social skills in pupils in preschool class and primary school years 1–3*, Chapter 5.

<sup>164</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

<sup>165</sup> Also see Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].



some pupils lack social skills, ‘codes of conduct’ and that they have less discipline than before. It also emerged that some pupils have difficulties concentrating during face-to-face instruction and that pupils express wishes to get to study more at home instead. Several teachers point out that pupils report sick at a higher extent for mild symptoms of illness, which has meant that absenteeism remains at a higher level than before the pandemic. According to teachers, there are pupils who say that they find it easier to concentrate at home and therefore want to study more at home. As mentioned in the next section, *Well-being of some pupils worsened during the pandemic*, some pupils in the upper-secondary schools had decreased study motivation and desire to learn during the pandemic. According to some upper-secondary teachers, the motivation does not seem to have returned since the pupils went back to more normal conditions in the school.

### **Swedish National Agency for Education’s assessment**

The pandemic brought major changes in the schooling of children and pupils, but also in their ways of living and quality of life.<sup>166</sup> Social contacts had to be severely limited on and off for a nearly two-year period. Recreational activities were cancelled, and many pupils were absent from school to a greater extent than usual, or had remote teaching for long periods of time. The overall assessment of the National Agency for Education is that this may have affected pupils’ social skills, although the extent of this is difficult to determine.

The pandemic has clarified the school’s role as a place where children and adults meet for more than just teaching, but for other things as well, such as recess activities, meals and social connection. The loss of such activities for long periods may affect not only the pupils’ social skills, but also their well-being and study motivation. The National Agency for Education wants to stress the importance of ensuring active values-based work that permeates all of the school’s activities and that the efforts and activities that were cancelled as a result of the pandemic can be resumed.

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<sup>166</sup> Forte (2022). *Sociala utmaningar för unga i spåren av pandemin – en forskningsöversikt* [Social challenges for young people in the wake of the pandemic – a knowledge overview].

## Well-being of some pupils worsened during the pandemic

The COVID-19 pandemic brought great changes in the lives of children and young people. In the schools, many pupils' daily lives were significantly changed by the fact that teaching was conducted remotely. The general recommendations in society and increased pupil absenteeism also made the pandemic years a different time. This led to a deterioration in the well-being of, above all, many pupils in the lower-secondary and upper-secondary schools.

### **Impact on well-being of preschool children seems to be limited**

In the National Agency for Education's study of the pandemic's effect on the preschools, many principals assessed that they were able to maintain the part of the preschool's mission that concerns providing a safe environment and care.<sup>167</sup> However, there is a lack of knowledge in the area, and it is therefore not entirely clear how the well-being of preschool children has been impacted by the pandemic.

### **In the compulsory schools, lower-secondary pupils' well-being was most negatively affected**

A majority of the principals in the National Agency for Education's autumn 2021 survey described that there was some need for efforts to promote pupils' well-being due to the pandemic. The needs were assessed to be somewhat greater in the lower-secondary schools than in the lower school years, which suggests that the well-being of lower-secondary pupils was affected more negatively by the pandemic. Just over one in three principals stated that they implemented efforts to promote pupils' well-being due to the pandemic. The efforts described as necessary concerned promoting pupils' mental well-being and attendance in school, and counteracting the loss of knowledge that occurred during the pandemic. According to the teachers, efforts were also needed to promote pupils' physical health and social interaction.<sup>168</sup>

The pupils' well-being was affected, among other things, in that they felt anxiety about their own health and the health of others. In some cases, the well-being of compulsory school pupils was affected by their home conditions changing during the pandemic, or because their legal guardians' mental health was adversely impacted. The deterioration has also been due to social isolation and loneliness as a result of remote teaching, cancelled sports and leisure activities, and that pupils weren't able to meet with friends and relatives as often as previously. It was the well-being of lower-secondary pupils in particular that was adversely affected by

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<sup>167</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>168</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

the teaching sometimes being conducted remotely. Studying at home also made it more difficult for them to keep up with the instruction, which led to increased stress and decreased motivation for schoolwork. Teachers have also expressed concerns that remote teaching along with increased pupil absences and social isolation could lead to more pupils experiencing long-term problematic absenteeism.<sup>169</sup> The Schools Inspectorate's studies also showed that both well-being and resilience against ill health among pupils, including in the compulsory schools, was negatively affected by their not being in school.<sup>170</sup>

### **Ill health seems to be more widespread in upper-secondary schools and was affected by remote teaching**

The majority of principals who participated in the National Agency for Education's autumn 2021 survey assessed that there was a need for efforts to promote well-being among upper-secondary pupils during the pandemic. However, how widespread the needs are considered to be varied. At some schools, ill health was widespread among the pupils, while at other schools, it concerned individual pupils whose well-being was adversely affected. Overall, however, there was a great need of support for strengthening upper-secondary school pupils' well-being during the pandemic.

The National Agency for Education's survey of principals and teachers in autumn 2021 showed that it was primarily mental illness<sup>171</sup> that was assessed to have increased during the pandemic. Some teachers stated that this varied between individuals, while others stated that it was more generally widespread among the pupils. The increase in mental illness was connected in many cases to remote teaching and the increased isolation and study stress that this could entail. The increasing ill health was also believed to have been affected by pupils experiencing a lack of motivation for their studies when the teaching was provided remotely and that self-esteem was adversely affected when the studies had not gone as the pupils' wanted during the periods of remote teaching.<sup>172</sup> It is important, however, to keep in mind that mental illness has been increasing among young people for a long period of time.<sup>173</sup> According to the Public Health Agency of Sweden, mental well-being among young people (ages 16–29) decreased slightly in 2021, while the proportion of young people with uneasiness,

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<sup>169</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>170</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>171</sup> 'Mental illness' is a collective term for various mental conditions of varying duration and severity. The definition includes psychological problems that are normal and common reactions to stresses in a person's life, but which can still lead to a reduced level of functioning. Examples can include depression, worry and anxiety. These also include psychological conditions that are mental disorders, syndromes and developmental mental disabilities. See, for example, Swedish Association of Local Authorities and Regions, Public Health Agency of Sweden and Swedish National Board of Health and Welfare (2021). *Begrepp inom området psykisk hälsa* [Mental health terms and concepts].

<sup>172</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>173</sup> Public Health Agency of Sweden (2019). *Folkhälsans utveckling. Årsrapport 2019* [Developments in public health. Annual report 2019].

worry or anxiety increased somewhat but was in line with earlier developments.<sup>174</sup> It was also pointed out in some of the teachers' answers that it is difficult to know if the deterioration in pupils' well-being is due to the pandemic, as there are many other factors in adolescents' lives that affect them negatively.

The Schools Inspectorate's studies have shown a similar picture of upper-secondary pupils' well-being, social situation and mental health deteriorating due to teaching being conducted remotely. The pupils themselves reported an increased perceived stress over their studies and a concern over not being able to absorb the teaching. Over half of the pupils said that they experienced a deterioration in their physical, mental and social well-being during the pandemic. It was more common for girls than boys to experience a deterioration in well-being.<sup>175</sup> The well-being of upper-secondary school pupils was, according to principals and teachers, also affected by teaching being carried out remotely in conjunction with the Public Health Agency's general recommendations, which meant that the pupils had fewer social interactions. Loneliness was described to have caused depression among the pupils, but also to have worsened cohesion in the classes and reduced pupils' feeling of security in social contexts. It was also more difficult during the pandemic for the pupils to maintain routines and structure in everyday life, which led to a lack of motivation and worsened well-being.<sup>176</sup>

Both the Schools Inspectorate's and the National Agency for Education's studies indicate that the well-being of upper-secondary school pupils seems to have been more affected the more remote teaching the pupils received. The need for health-promoting initiatives was greater at schools with a high proportion of pupils in higher education preparatory programmes, who had most of their teaching remotely and thereby had the greatest negative impact on their well-being.<sup>177</sup>

### **Some residual consequences for upper-secondary pupils even after return to face-to-face instruction**

The National Agency for Education's autumn 2022 survey of upper-secondary school teachers provides a picture of certain residual consequences of the pandemic that could affect the well-being of upper-secondary pupils going forward. This concerns, in addition to the previously mentioned impact on pupils' knowledge development and social skills, a lack of motivation and endurance that seems to remain among some pupils. Besides the descriptions of a lack of study motivation, which could have an effect on pupils' well-being going forward, some

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<sup>174</sup> Public Health Agency of Sweden (2022). *Unga och covid-19-pandemin – ungas livsvillkor, levnadsvanor och hälsa* [Young people and the COVID-19 pandemic – young people's living conditions, lifestyles and health].

<sup>175</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching] and Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisning på gymnasieskolor våren 2021* [Remote teaching in upper-secondary schools in spring 2021].

<sup>176</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>177</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching] and Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisning på gymnasieskolor våren 2021* [Remote teaching in upper-secondary schools in spring 2021].

teachers see markedly increased or persistent ill health among the pupils. For example, increased mental illness or problems maintaining routines. This is often described as a residual consequence of the years with a lot of remote teaching.<sup>178</sup>

The deterioration in young people's well-being during the pandemic must be viewed in a larger context, however. Mental illness among young people has been increasing for some time and it is difficult to determine what in the descriptions above is due to the pandemic and what has been caused by other factors.<sup>179</sup>

### **Well-being among some Komvux pupils negatively affected by remote teaching**

The Schools Inspectorate's study of well-being among upper-secondary level adult education (Komvux) shows that just under half of the pupils asked felt that remote teaching had a negative impact on their well-being. However, one-third of the pupils answered that this form of teaching did not affect their well-being at all. It seems to be somewhat more common for pupils in vocational courses to see less of an impact on well-being in comparison with pupils who were studying other courses on the upper-secondary level. The problem descriptions found among the Komvux pupils are similar to those described for compulsory and upper-secondary school pupils.

Mental well-being has worsened due to depression and through the experience that the social aspects of the education had disappeared. Many pupils also described that the stress over their studies had increased. For some pupils, this was because they did not learn as much when the teaching was conducted remotely. Pupils' motivation and desire to study was also adversely affected, among other things because the support the pupils normally receive was not there when the teaching was conducted remotely.<sup>180</sup> The National Agency for Education's studies confirm this picture. Particularly among the pupils in Swedish For immigrants (SFI), the National Agency for Education has seen that it was difficult to maintain study motivation during remote teaching, and that the pupils felt a sense of failure when their studies did not go as they had wished. Increased social isolation as a result of the general shutdown of society as a whole is also reported to have had a particular impact on pupils in SFI.<sup>181</sup>

### **Swedish National Agency for Education's assessment**

The Swedish National Agency for Education's assessment is that, above all, the well-being of secondary, upper-secondary and adult education pupils was affected most negatively during the pandemic, although there was individual variation. The consequences do not seem to have been as extensive for children in preschool

<sup>178</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

<sup>179</sup> Public Health Agency of Sweden (2019) *Folkhälsans utveckling. Årsrapport 2019* [Developments in public health. Annual report 2019].

<sup>180</sup> Swedish Schools Inspectorate (2021). *Fjärr-och distansundervisning vid kommunal vuxenutbildning* [Remote teaching in municipal adult education].

<sup>181</sup> Swedish National Agency for Education (2022). *Kunskapstappet inom svenska för invandrare* [Loss of knowledge in Swedish for immigrants].

and pupils in the lower school years of compulsory school. The deteriorated well-being among pupils in the higher school forms seems to be primarily due to increased loneliness as a consequence of the changed social life during the pandemic and to remote teaching. For some pupils, remote teaching led to increased stress about their studies, which adversely affected their well-being.

The National Agency for Education assesses that there is a risk that there will be some residual impact on the pupils' well-being even after the pandemic has subsided. This includes, among other things, a risk of continued high absenteeism among compulsory school pupils. There is also a risk that the loss of knowledge assessed to have occurred to a certain extent in, above all, the upper-secondary schools during the pandemic will remain among pupils and affect their well-being and study motivation over a longer period of time. As the pupils move on to the upper-secondary schools, where both requirements and work pace are higher, such problems may be amplified for those who have fallen behind. The National Agency for Education is therefore of the view that there is a risk that the pandemic will have consequences for the mental health of upper-secondary pupils.

## Pupil health services' work more difficult and less proactive

The pandemic made it more difficult for the pupil health services to fulfil its mission. The challenges were more extensive in the upper-secondary schools than in the compulsory schools. In both school forms, however, it was the health-promoting and preventative efforts and efforts and investigations concerning pupil absences that had to take a back seat during the pandemic. In the compulsory schools, it was absences among staff and pupils and the pandemic restrictions that prevented pupil health interventions, while in the upper-secondary schools, it was primarily due to activities being conducted remotely. Adult education at upper-secondary level (Komvux) has no corresponding pupil health requirements to those in the compulsory and upper-secondary schools, and this has therefore not been investigated.

### Varying conditions for fulfilling the pupil health mission in compulsory schools

At the beginning of the pandemic, there were signs that it was becoming more difficult to meet compulsory school pupils' needs for support and extra adaptations. This was primarily due to the increased staff absences, but was also caused by higher workloads. One year into the pandemic, there were indications in the conducted interviews of a general increase in the needs for extra adaptations, while the needs for special support increased primarily among the pupils who had this type of support even before the pandemic.<sup>182</sup> In the National Agency for Education's autumn 2021 survey, the majority of principals assessed that there were obstacles to implementing efforts for pupils in need of special support during the pandemic. There were clear variations, however, and nearly four in ten principals said that the mission could be completely fulfilled. Generally, according to the principals, there was no change during the pandemic in terms of number of completed investigations for pupils in need of special support, although there was a certain amount of variation between schools.<sup>183</sup> The National Agency for Education's studies also suggest that schools with independent organisers generally did not deem that obstacles were as great as schools with municipal organisers.

Pupil absences in the compulsory schools, particularly the long-term absences, led to an increased need for support efforts from the pupil health services.<sup>184</sup> Of the tasks in the pupil health services' mission, most principals assessed that it was difficult to implement efforts to promote pupil attendance, as well as

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<sup>182</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 3 – tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability].

<sup>183</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>184</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 3 – tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability].

investigations into the causes of pupil absences. At the same time, the number of investigations into pupil absences increased during the pandemic.<sup>185</sup> Most schools also experienced difficulties in carrying out preventative and health-promoting efforts during the pandemic. However, it functioned relatively well to conduct pupil health discussions and investigations into and interventions to remedy degrading treatment.<sup>186</sup>

Staff absences had an impact on the pupil health services employees' ability to work with pupil health because they often needed to substitute when the regular teachers were absent.<sup>187</sup> Pupil absences were also an obstacle for the pupil health services' work, as well as the restrictions that the general recommendations meant for how the work could be conducted.<sup>188</sup> To follow the general recommendations, the pupil health services needed to adapt how they worked, for example by having individual meetings with pupils rather than meeting in groups.<sup>189</sup> The initiatives implemented in pupil health concerned both organisational changes to address the different conditions, and reinforcement and skills development for the staff.<sup>190</sup>

### **More extensive restrictions in the pupil health mission in the upper-secondary schools**

In the upper-secondary schools, the obstacle for pupil health work was generally greater than in the compulsory schools, although there was some variation in the pupil health mission. In the National Agency for Education's survey, a majority of the participating principals were unable to fully carry out any part of the pupil health mission. Although it is difficult to know how the situation is normally, this indicates that the pandemic entailed extensive obstacles for pupil health in the upper-secondary schools.<sup>191</sup>

It was most difficult for the upper-secondary schools' pupil health services staff to carry out health-promoting and preventative efforts.<sup>192</sup> This was also seen by the Schools Inspectorate, which described pupil health work during the pandemic

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<sup>185</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>186</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>187</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 3 – tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability].

<sup>188</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>189</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 3 – tema grund- och grundsärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Compulsory School and Compulsory School for Pupils with Intellectual Disability].

<sup>190</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 4 – tema grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Theme Compulsory School]. Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>191</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>192</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].



as less actively health-promoting than before the pandemic.<sup>193</sup> The National Agency for Education's surveys have also shown difficulties in the work with attendance – implementing efforts to promote pupil attendance and investigations into reasons for pupil absences.<sup>194</sup> The number of investigations into causes of pupil absenteeism was primarily unchanged in the upper-secondary schools, although there were variations between schools.

During the periods of remote teaching, most upper-secondary schools offered pupils in need of special support the opportunity to receive their teaching on site in the school. However, there were difficulties for the pupil health services to conduct investigations for pupils in need of special support at some schools and to implement efforts for pupils in need of special support. The number of investigations carried out for pupils in need of special support were also essentially unchanged, although there was some variation between schools.

It functioned relatively well during the pandemic to hold the pupil health services' health discussions with pupils. The same applies to conducting investigations into degrading treatment. It functioned less well, however, to implement interventions to remedy degrading treatment.

The main reason why the pupil health services' work in the upper-secondary schools was made more difficult during the pandemic was that the teaching and some pupil health activities were conducted remotely. Principals said that this made it more difficult for the teachers to get an idea of the pupils' need for support in the instruction when they did not meet physically, and that it was more difficult to provide individual support through digital meeting tools when the entire class was in attendance. It was also to some extent up to the pupils themselves to take the initiative to get help, which pupils with support needs rarely did.<sup>195</sup> During the pandemic, the pupil health services needed to adapt their work to be more outreaching in order to detect pupils who were in need of interventions and support.<sup>196</sup>

## Swedish National Agency for Education's assessment

The National Agency for Education sees that both pupil health services staff and school management have made great efforts to get the pupil health work to function during the conditions that prevailed during the pandemic. Despite this, pupil health work has to some extent been prevented and the National Agency for

<sup>193</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>194</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>195</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema gymnasie- och gymnasiesärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Upper-Secondary School and Upper-Secondary School for Pupils with Intellectual Disability].

<sup>196</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 3 – Tema gymnasie- och gymnasiesärskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 3 – Theme Upper-Secondary School and Upper-Secondary School for Pupils with Intellectual Disability] and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet, delredovisning 4 – Gymnasieskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Upper-Secondary School].

Education assesses that this has had consequences for the pupils' health and opportunity to have their support needs met.

In the upper-secondary schools, the pupil health services had to be more outreaching to get into contact with pupils and identify support needs. At the same time, it was more difficult for teachers to identify pupils in need of support and the responsibility for getting support largely lay with the pupils themselves. The National Agency for Education therefore sees a risk that pupils with support needs have not received support interventions to a sufficient extent. It also seems to have been more difficult during the pandemic to give pupils with already existing support needs the interventions to which they are entitled. In the compulsory schools, pupil health efforts were made more difficult by pupil and staff absences, as well as by pandemic restrictions. At the same time as absences were very high, the schools experienced difficulties in carrying out attendance-promoting efforts. The National Agency for Education assesses that there is a risk of changed attitudes to absences among pupils, and continued high absenteeism going forward as a consequence of this.

The opportunities to implement health-promoting and preventative efforts were limited in both the compulsory and upper-secondary schools during the pandemic at the same time as well-being deteriorated among some pupils. That pupil health services had poorer conditions to prevent ill health carries a risk that pre-existing problems may have been amplified or reinforced among some pupils. The National Agency for Education sees risks in that the pupil health services in many areas had to act more reactively during the pandemic, and that the preventative and health-promoting work then had to take a back seat.

## Strained working environment for many teachers

The pandemic brought an increased workload and worsened working environment for teachers, preschool teachers and other staff in the education system. One of the most important reasons for the increased workload was increased staff absences during the period, but pupil absences, remote teaching and other guidelines and recommendations for how activities in schools and preschools should be organised also contributed to increasing the workload. The psychosocial work environment for teachers also seems to have been drastically affected during the pandemic, not least due to a widespread concern over being infected.

### Increased workloads for teachers, preschool teachers and other staff during the pandemic

In the National Agency for Education's surveys, organisers, principals, and teachers in the preschools, compulsory schools and upper-secondary schools provide an overall picture that the workloads have been much higher than normal during the pandemic. This applies for all staff categories in the school forms, albeit to varying degrees.<sup>197</sup>

### Absences among staff was the main reason for increased workloads

Staff absenteeism is assessed to be one of the most important factors behind the increase in workload during the pandemic. In autumn 2021, eight of ten organisers stated that they had problems with staffing at one or more of their compulsory schools during the pandemic. An equal number of compulsory school principals stated that there were problems with high levels of absenteeism among staff at their schools.<sup>198</sup> Staff absence was also a big challenge in the preschools during the pandemic. A very large majority, nearly nine in ten principals, stated that staff absences in the preschools increased during the pandemic.<sup>199</sup> In the upper-secondary schools, the impact of staff absences does not seem to have been as extensive as in the preschools and compulsory schools, which may be explained by the teaching being carried out remotely to a greater extent.<sup>200</sup>

Although problems with staffing has been a recurring issue in the Swedish education system, even before the pandemic, it is the National Agency for

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<sup>197</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools] and the Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>198</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>199</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Tema Förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Theme Preschool] and Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>200</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

Education's overall assessment that the problems were greater during the pandemic.

Most schools resolved the staffing situation during the pandemic by bringing in external substitute teachers or by letting their own staff substitute for each other in order to reduce the spread of infection. At the compulsory schools where they chose to handle staff absences by letting their own staff substitute, workloads increased more than at schools that brought in extra staff from outside the school.<sup>201</sup> Yet another difference was noted between schools with different pupil–teacher ratios. At upper-secondary schools with a low pupil–teacher ratio, i.e., the schools that have a lot of pupils per teacher, it was more common for the principals to report an increased workload for certain staff groups than for upper-secondary schools with a high pupil–teacher ratio.<sup>202</sup> In preschools, staff absences were handled primarily by appealing to guardians to keep their children at home, followed by moving staff between departments within the preschools.<sup>203</sup>

In a questionnaire survey conducted in autumn 2021, nine in ten teachers in the compulsory schools responded that they had been adversely affected by colleagues being absent during the pandemic. Many teachers describe that they had to substitute for absent colleagues, which meant that they had more lessons or that they taught larger groups of pupils. Many have also assisted and supported substitute teachers to a greater extent than previously. According to the teachers, the increased workloads contributed to them having less time for their own teaching and for documentation and planning, which affected the quality of the teaching, which has been previously discussed in section *Challenge to maintain teaching quality*. A number of teachers reported that more substitute teachers, more cancelled classes and fewer recess monitors also had a negative impact on the school environment as a whole.<sup>204</sup>

### **Pupil absences and remote teaching also affected workloads**

In addition to staff absences, there were also other factors that affected the workloads of teachers and principals during the pandemic. These mainly concerned increased pupil absences, remote teaching, new routines and increased administration. Teachers in the compulsory schools reported in the National Agency for Education's autumn 2021 survey that the high pupil absenteeism meant that the teaching material often needed to be adapted for the pupils who had been at home and that more repetition and support were needed for pupils who had been absent. Pupil absences also entailed more preparatory work,

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<sup>201</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>202</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>203</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>204</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

increased documentation and follow-up, and more frequent contacts with guardians.<sup>205</sup>

For teachers in the lower- and upper-secondary schools, the transition to remote teaching was a strong contributing factor to the increased workload. The switch to remote teaching often happened very quickly, which placed great demands on the teachers to quickly assimilate new technology and adopt a new way of teaching. Many teachers report that there was a greater need for individual monitoring to determine if the pupils were keeping up with the instruction. The increased amount of individual written assignments in remote teaching also meant more administration for the teachers.<sup>206</sup>

It was also common during the pandemic to switch between face-to-face instruction and remote teaching. Many teachers state that the recurring switches between teaching forms, i.e., between having some lessons remotely and others as face-to-face instruction, or both forms of teaching during a single lesson, contributed to the increase in workload.<sup>207</sup>

### **Infection control measures also contributed to workload**

The work to introduce infection control measures at the schools was yet another factor that contributed to increasing the workloads of both teachers and principals. The principals worked, among other things, more with issues connected to staffing and work environment, while the teachers were given new tasks, such as ensuring compliance with the infection control measures and that the teaching was adapted in accordance with prevailing restrictions and recommendations. This could, for example, involve ventilating classrooms, preventing crowding in the classrooms, or wiping down desks and instruments.<sup>208</sup>

### **The psychosocial work environment worsened during the pandemic and many teachers still experience fatigue**

The National Agency for Education's studies suggest that there was a widespread concern for one's own and others' health among staff in the education system during the pandemic. Many teachers found working in the schools during the pandemic to be stressful and mentally taxing as they constantly felt exposed to the risk of becoming seriously ill while also feeling that they had few opportunities to protect themselves. The infection control measures introduced in the schools were perceived by many to be insufficient. The restrictions also meant that many

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<sup>205</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>206</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools] and the Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>207</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>208</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

teachers could not meet with their colleagues to the same extent as before the pandemic, which had a negative impact on their work environment. Several teachers in the National Agency for Education's studies stated that they were not as happy at work and had deteriorated well-being due to the disappearance of the social interaction with colleagues.<sup>209</sup>

In the preschools, infection concerns were high during the pandemic. The preschool's activities are greatly characterised by physical closeness and preschool employees have therefore been particularly exposed to infection. The National Agency for Education's studies show that there was frustration in the preschools that advice and guidelines were more often based on the reality in the schools rather than in the preschools. Discussions with guardians on the interpretation of guidelines to limit the spread of infection became a new work task that also affected the staff's, and sometimes also the principals', work environment.<sup>210</sup>

Organisers, principals and teachers all express that there was a fatigue among staff in the schools during the pandemic. The duration of the pandemic and the constant need to be prepared for rapid changes, in combination with the high workloads, stress and anxiety, adversely affected the work environment and took a toll on the staff. The picture presented in the National Agency for Education's studies is that many teachers and principals feel exhausted after a long period with the pandemic. Both organisers and principals have expressed a concern for the staff's health after the impact on the work environment brought by the pandemic.<sup>211</sup>

Yet there are many teachers who also highlight the efforts required by them to carry out their work during a period that was exceptional in many ways. Many teachers describe how proud they are that they were able to manage this task.<sup>212</sup> Principals in the preschools describe that the realisation that they had an important job that contributes to maintaining the functioning of society during a crisis increased the motivation among staff in the preschools.<sup>213</sup>

In the National Agency for Education's survey of teachers in autumn 2022, many respondents reported that they still perceive that teachers are tired and worn out after the pandemic.<sup>214</sup> One teacher writes that the schools have not taken into account the increased workload during the pandemic and that there has not been

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<sup>209</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>210</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>211</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4* [The impact of the COVID-19 pandemic on the education system, Interim Report 4] and Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>212</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>213</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>214</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

time for recovery. Another effect of the pandemic that emerges from the teachers' responses is that there are still many teachers and pupils who stay home with minor symptoms of illness, which means additional work and an increased workload for the teachers who are present. Yet there are also teachers who see more positive effects of the pandemic. One teacher expresses this as that attendance while ill has decreased and that the increased digital proficiency makes it easier for both teachers and pupils to be absent when they are sick.

### **Swedish National Agency for Education's assessment**

It is the assessment of the National Agency for Education that the pandemic entailed an increased workload and a deteriorated work environment for school leaders, teachers, preschool teachers and other staff in the education system. It has impacted the staff in all school forms, but to varying degrees depending on how extensive staff absences were at each preschool and school and what measures were taken to secure staffing.

A high pupil–teacher ratio and a good supply of staff seem to have decreased the organisation's vulnerability during staff absences and thereby mitigated the consequences on the staff's work environment. The National Agency for Education assesses that in many cases there is a need for recovery for school staff after the pandemic. The exertions and the efforts made by principals, teachers, preschool teachers and other staff during the COVID-19 pandemic have been crucial to mitigating the adverse effects of the pandemic.

## Digital leap during the pandemic

The pandemic meant a new situation for the education system and many teachers and other staff had to quickly readjust and manage both new technology and new forms of teaching. Although this was challenging and taxing in many ways, there were many positive experiences and examples of new ways of working that emerged during the pandemic and which will in some cases remain in the education. Most examples are connected to the digital leap that pupils and teachers made during the pandemic.

### **Increased clarity and structure a positive effect of the pandemic**

In both the National Agency for Education's and the Schools Inspectorate's studies, there are examples of new ways of working that have emerged during the pandemic and which are seen as important lessons that the schools can take with them going forward.<sup>215</sup> A prominent example is the work that many schools have devoted to increasing clarity and structure for the pupils. To support the pupils in finding a reasonable level of exertion and reducing their feelings of stress, teachers describe that they have been clearer about how much time each assignment is expected to take and about how extensive the assignments are, and have adapted the scope and instructions of written assignments to give the pupils an idea of what was expected of them.<sup>216</sup> Upper-secondary teachers in the National Agency for Education's autumn 2022 survey also emphasise increased clarity and better communication with the pupils as a positive effect of the pandemic. Several teachers describe that they have continued to work with more frequent feedback to the pupils and that they are clearer about the purpose and goals of each lesson to clarify what expectations exist.<sup>217</sup>

Other positive experiences from the pandemic that teachers have shared are of organising make-up days for pupils to retake tests if they missed tests during the semester or fell behind in their work due to absence. This is stated to have relieved a lot of stress and burden for the teachers because all make-up tests are scheduled for a single period. Another teacher says that during the pandemic, they introduced two days per semester where pupils who were behind in any course could receive teaching on site in the school while other pupils worked from home with home studies. This school continued with this even after the pandemic and the teacher believes that this has been a good way of working.<sup>218</sup>

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<sup>215</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic]. Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>216</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>217</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

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## Digital technology can facilitate teaching for both teachers and pupils

Upper-secondary teachers in the National Agency for Education's 2022 survey highlight several examples of how the increased use of digital technology has facilitated teaching both during and after the pandemic. One such example is that teachers have begun recording lessons and reviews so that absent pupils could participate in the lessons from home. This is described as a positive change that makes it possible for the pupils to keep up with the teaching while the teachers avoid the additional work involved in explaining the same course component over and over again for pupils who were absent. Several teachers also point out that it can be beneficial for some pupils to be able to listen to a review multiple times.<sup>219</sup> This is an aspect that the Swedish Schools Inspectorate also highlights. According to the Schools Inspectorate, it has been positive for some pupils, such as pupils on the autism spectrum, to be able to participate or review recorded teaching as necessary.<sup>220</sup>

The Schools Inspectorate also points out the advantages of pupils in remote teaching working in digital documents because this has made it easier for the teachers to monitor the pupils' work and provide ongoing support and feedback in the documents.<sup>221</sup> Upper-secondary teachers in the National Agency for Education's autumn 2022 survey also describe the ability to monitor the pupils' work in digital documents during the lessons as a strength that provides greater insight into the pupils' thoughts and production.<sup>222</sup>

Another consequence of the pandemic that teachers highlight as positive is increased knowledge among the teaching staff about how different virtual learning environments can be used in teaching. A recurring example is that teachers have begun to compile assignments, lesson material and other information about each lesson digitally, which gives both teachers and pupils a better overview of their day. This also means that pupils who are sick can follow the digital lesson planning from home, and when teachers are sick or absent for another reason, the pupils can do the assignments digitally so that colleagues do not need to be burdened. Several teachers also describe that they use various digital platforms to remain in contact with pupils, which is reported to have facilitated communication.<sup>223</sup>

Recorded group discussions and reports are another example of how digital technology has been used to develop the teaching. By recording their reports, the groups became less dependent on all pupils being present at the presentation of the report, and also gave the groups the opportunity to present and evaluate their

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<sup>219</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

<sup>220</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>221</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>222</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

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efforts in connection with the recording. Even oral exams have in some cases been recorded so that they could be assessed in peace and quiet afterwards. This is reported to have strengthened the possibility of joint assessment.

Most of the new ways of working described in this section have been highlighted as important complements to classroom teaching and as things that will be utilised in the teaching going forward. Some upper-secondary teachers in the National Agency for Education's autumn 2022 survey, however, express that the access to digital technology and virtual learning environments has worsened after the pandemic. Other teachers see a risk that the opportunity to follow the teaching digitally might lead to increased absences among the pupils, which is further discussed in the next section.<sup>224</sup>

### **Both pros and cons with remote teaching**

One of the most sweeping changes during the pandemic was the transition to remote teaching in the compulsory lower-secondary schools and in the upper-secondary and adult education at upper-secondary level schools, which is presented in more detail in section *Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools*. Remote teaching refers in most cases to different forms of teaching in which pupils and teachers are separated in space but not in time. Several upper-secondary teachers in the National Agency for Education's autumn 2022 survey highlight positive experiences of teaching remotely. These primarily concerned that it was more effective to be able to sit at home and work and not be disturbed in the same way as in the schools. Teachers also see it as positive that they could, in the case of milder symptoms or when home caring for their own children, have lessons digitally via large-screen projectors with the pupils in the classroom. This was described as a good solution instead of cancelling lessons or calling in a substitute teacher. Many teachers express desires to continue to work more from home, particularly during lesson-free time.<sup>225</sup>

There are also many teachers who emphasise that the opportunity for pupils to participate in teaching remotely when they had milder symptoms was a great advantage during the pandemic, and a number of teachers want that possibility to remain. It is seen as a better alternative that pupils can follow the teaching from home in the event of illness, rather than that the pupils fall behind and have a hard time catching up. Teachers also point out that remote teaching can be beneficial for certain groups of pupils. One teacher writes, for example, that pupils with long-term school absenteeism have been able to follow the teaching digitally, even when the rest of the pupils were in the classroom.<sup>226</sup>

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Yet several teachers also describe that it has been important to emphasise that it is face-to-face instruction that applies after the pandemic. Offering remote teaching for pupils who are temporarily out sick risks increasing absenteeism. Several examples were given of pupils staying home sick with mild symptoms, or asking to participate digitally for the first lesson in the morning because they didn't have the energy to get to school.<sup>227</sup>

It emerges from the National Agency for Education's autumn 2022 survey of upper-secondary teachers that there are great differences in how schools handled the return to face-to-face instruction. In some schools, it seems to have continued to be possible for pupils to follow the teaching remotely when they were absent, while other schools returned completely to face-to-face instruction. The teachers' responses also indicate that there are teachers who continued to teach remotely from home with milder symptoms.<sup>228</sup> The National Agency for Education would like to emphasise, however, that there is currently no legislation governing the possibilities for remote teaching based on such conditions.

### **Digital meetings and parent–teacher conferences are here to stay**

Many upper-secondary teachers in the National Agency for Education's autumn 2022 survey highlight digital meetings and digital parent–teacher conferences as positive examples of how the increased use of digital tools has simplified the teachers' work. Digital parent–teacher conferences are reported to have saved time for teachers and increased accessibility for guardians. Many teachers describe that the possibility of meeting digitally has lowered the threshold for contacting guardians and that it has become much more common for more than one guardian to participate in the conferences. Digital meetings have also facilitated the use of interpreters in discussions with guardians. Participation in work team meetings or subject team meetings was also reported to have increased during the pandemic when teachers were able to connect and attend meetings via a video link. The possibility of participating in meetings and parent–teacher conferences digitally seems to be a change that is here to stay.<sup>229</sup>

### **Swedish National Agency for Education's assessment**

The National Agency for Education's assessment is that teachers and other staff made a crucial contribution during the pandemic. They were able to adapt their teaching to the prevailing conditions during the pandemic and have developed several new ways of working that, given the circumstances, have worked well. The digital leap that teachers and pupils made during the pandemic has the potential to improve teaching, particularly for pupils who are in need of repetition, structure and clear expectations. At the same time, it is important that

<sup>227</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

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<sup>229</sup> In autumn 2022, the National Agency for Education conducted a smaller survey directed at upper-secondary school teachers with a focus on the teachers' view of the pandemic's effects and received about 250 responses.

the digital technology is used as a complement to face-to-face instruction. It is the assessment of the National Agency for Education that there seems to be a significant risk of increased pupil absences when teaching is made more accessible digitally.

Similarly, the pandemic has shown that there are positive aspects of teaching remotely for short periods of time, such as during absences due to mild symptoms or for pupils with problematic absenteeism. It was positive for many pupils with long-term school absenteeism to get to participate in remote teaching in their regular class. However, the benefits must be weighed against the risk that remote teaching is offered too hastily and that it undermines the importance of meeting and learning together in the classroom. There is currently no legislation governing the possibilities for remote teaching in the way requested. The National Agency for Education assesses that further investigation is needed into whether, and if so how, remote teaching could continue to be conducted based on an individual assessment of pupil needs.

## Poorer conditions for assessment and grading

It has been more difficult to assess pupils' knowledge and to set grades during the pandemic. In the compulsory schools, the main explanation for this was increased pupil absences, while in the upper-secondary schools it was primarily due to remote teaching, which has worsened the basis for assessment and grading.

### **Absences, remote teaching and cancelled national tests affected the basis for assessment**

Both the National Agency for Education and the Schools Inspectorate have stated that the conditions for grading deteriorated during the pandemic. In the National Agency for Education's survey of teachers in autumn 2021, four in ten teachers in the compulsory schools and nearly two in three teachers in the upper-secondary schools responded that it was more difficult to assess the pupils' knowledge during the pandemic. In the lower-secondary schools, over half of the teachers stated this.<sup>230</sup> Organisers and principals have also in several surveys pointed out that the conditions for equitable and fair assessment were affected during the pandemic.<sup>231</sup> The factors that were most commonly perceived to have made assessment more difficult are absences among pupils and staff, remote teaching, and cancelled national tests. To what extent the various factors have affected the assessment differ, however, between different school forms, as well as according to the extent of the local contagion.

<sup>230</sup> Swedish National Agency for Education (2022). *Kunskapsstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic]. Swedish National Agency for Education (2022). *Kunskapsstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>231</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Interim report 4*. [The impact of the COVID-19 pandemic on the education system. Interim Report 4].

### **Increased pupil absences main reason for more difficult assessments in compulsory schools**

In the compulsory schools, it was primarily the high absenteeism among pupils that made assessments of the pupils' knowledge more difficult, although other factors such as remote teaching and cancelled national tests also had an impact. In the National Agency for Education's teacher survey, teachers describe that they had a more limited basis on which to assess pupils' knowledge because many pupils missed key components of the teaching. In some cases, there was no basis for assessment at all when pupils were absent during exams and assessments.<sup>232</sup>

In addition to pupil absences, the high absenteeism among staff affected the pupils' opportunities to demonstrate their knowledge. Staff absences meant less continuity in the teaching and that lessons or teaching components sometimes needed to be cancelled because it was often difficult to find qualified substitute teachers.<sup>233</sup>

### **Remote teaching affected the teachers' work with assessments and grading in the upper-secondary schools**

In the upper-secondary schools, it was primarily remote teaching that made grading and assessments more difficult. Teachers describe that it was more difficult to follow the pupils' work and progression remotely. The encounter between teachers and pupils is important when assessing, and several teachers said that it was more difficult to assess the pupils' knowledge digitally – participation and verbal performance are best seen in the classroom. The pupils thus had fewer opportunities to demonstrate their knowledge and the assessment was affected to a greater extent by how the pupils performed on written assignments and tests. The teachers also describe that practical subjects and course components were difficult to carry out and assess remotely, such as physical education and health, music, vocational subjects and laboratory sessions.<sup>234</sup>

The Swedish Schools Inspectorate's review of remote teaching also shows that it was more difficult for the teachers to give the pupils good conditions to demonstrate what they could do during the pandemic, as well as to find assessment situations that provided a reliable basis for assessment. Nearly half of the questioned principals and teachers in the compulsory and upper-secondary schools report that grading ability was impaired during remote teaching. One major challenge seems to have been creating versatile and varied assessment situations or examinations during remote teaching.<sup>235</sup>

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<sup>232</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>233</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic]. Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4 – Grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School].

<sup>234</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>235</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

Many teachers in both the National Agency for Education's and the Schools Inspectorate's studies describe that they felt an uncertainty as to whether the pupils had themselves done the assignments carried out remotely and that the occurrence of cheating increased during periods of remote teaching. This was reported to have affected the fairness of the assessment. To reduce the risk of cheating, the teachers often used the face-to-face instruction sessions to test the pupils' knowledge and give them the opportunity to show what they could do. Many principals describe that teachers became more innovative during the pandemic. For example, the schools have in some cases looked into solutions used by universities and higher education institutes, such as take-home examinations, or used seminars and oral presentations in groups.<sup>236</sup>

### **Cancelled national tests were reported to have affected equality**

Due to the spread of infection and the increased workload, the national tests were cancelled in the spring semesters of 2020 and 2021; see further section *Cancelled national tests*. Many organisers for the upper-secondary schools assessed in autumn 2021 that the cancelled national tests were the reason for less reliable and fair assessments of the pupils' knowledge in the subjects in which national tests are normally conducted.<sup>237</sup> In the compulsory schools, the organisers reported that the cancelled national tests made assessment more difficult in the subjects that normally have national tests because the teachers did not have a national picture to compare their pupils' results with. Above all, the organisers believed that fairness and equality may have been affected.<sup>238</sup> Organisers for adult education at upper-secondary level (Komvux) in Swedish for immigrants also stated that the cancelled national tests in the spring of 2021 to some extent made the conditions for grading more difficult.<sup>239</sup>

Just under half of the teachers who taught in the subjects in which national tests are given in the upper-secondary schools assessed in the National Agency for Education's teacher survey that the cancelled national tests made their work with assessment and grading more difficult.<sup>240</sup> Many teachers stated that they instead used the National Agency for Education's assessment aids<sup>241</sup> or other support for assessment, such as older national tests or the teacher's own exams. This may to some extent have counteracted the adverse impact of the national tests being cancelled.

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<sup>236</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisning på gymnasieskolor våren 2021* [Remote teaching in upper-secondary schools in spring 2021]. Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>237</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4 – Gymnasieskolan* [The impact of the COVID-19 pandemic on the education system. Interim Report 4 – Upper-Secondary School].

<sup>238</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4 – Grundskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Compulsory School].

<sup>239</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4 – Komvux* [The impact of the COVID-19 pandemic on the education system. Interim Report 4 – Adult Education at Upper-Secondary Level].

<sup>240</sup> Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic].

<sup>241</sup> As a replacement for the national tests, the National Agency for Education prepared temporary assessment aids that were available on the Agency's website.

## Swedish National Agency for Education's assessment

It is the National Agency for Education's assessment that the conditions for assessing the pupils' knowledge and for grading were more difficult than usual during the pandemic. The factors that were most commonly perceived to have affected the basis for assessment were absences among pupils and staff, remote teaching, and cancelled national tests. However, the impact of the various factors differs between different school forms and subjects, as well as according to the extent of local contagion.

Although many principals and teachers state that there was a certain loss of knowledge during the pandemic, the grades in school year 9 and in the upper-secondary schools continued to increase in 2020 and 2021. The National Agency for Education cannot with certainty draw any conclusions on how the teachers have handled the changed conditions for assessment. The teachers' own descriptions, however, suggest that they had not wanted to lower the pupils' grades because they were sick or otherwise had poorer conditions to absorb the teaching and show their skills in a versatile and varied way.

In school year 9, grades went down in spring 2022 to about the same levels as before the pandemic. See further reasoning on this in Chapter 6 *Grade developments during the pandemic*.

## Changed governance affected conditions for organisers and principals

The Swedish crisis management model is often described as being based on the ‘responsibility principle’, i.e., that the person who is responsible for an activity in normal situations also has corresponding responsibility in the event of disruptions in society.<sup>242</sup> In the education system, this means that the organiser is responsible even in a crisis for ensuring that the education is carried out in accordance with current and applicable regulations.<sup>243</sup> During the pandemic, however, there was increased state governance of the education system. Not least through new ordinances that particularly regulated preschools and schools during the pandemic.<sup>244</sup> In addition, as mentioned in Chapter 3, new actors such as the Public Health Agency of Sweden and the regional infection control agencies became involved in the governance of the education system. At the same time, a need was expressed for more room to manoeuvre to be able to act quickly and make local adaptations.

### Several new actors created many governing signals

The new ordinances adopted by the Government in spring 2020 made it possible, above all, to close schools and conduct teaching remotely. The general view of the National Agency for Education is that organisers felt that this was a reasonable and good course of action.<sup>245</sup> Organisers describe a more direct governance of the education system from the state. Some even stressed that they had a certain expectation of increased central governance in the type of crisis that the pandemic entailed. One organiser expressed that ‘if it hadn’t been for the state, we would have closed everything down like all the other countries’.<sup>246</sup>

As mentioned in Chapter 3, the pandemic meant several new governing actors for the education system. The Public Health Agency of Sweden was one such central state actor during the pandemic. The organisers describe this public authority as a clear governance actor and as an actor from which they sought information. At the same time, there was some room for interpretation for the organisers concerning how the organisations should act under the guidelines, which was perceived as both negative and positive.<sup>247</sup>

Another governance actor was the regional infection control agencies, which gained greater responsibility later during the pandemic when regional guidelines could also be developed, which several organisers described as positive. This was partly because it was possible to make more local adaptations, and partly because

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<sup>242</sup> SOU 2022:10.

<sup>243</sup> Pursuant to Chapter 2, Section 8 of the Education Act (2010:800), it is the organiser that is responsible for ensuring that the education is carried out in accordance with applicable law.

<sup>244</sup> Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>245</sup> See more in Chapter 8 on the school authorities’ supporting efforts.

<sup>246</sup> Quote from organiser representative 2022.

<sup>247</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].



the organisers could have closer and more direct contact with the infection control agencies than they could with other authorities.

The Corona Commission points out, however, that there were general challenges concerning the Public Health Agency's responsibility to coordinate national infection control while the operative responsibility for infection control was placed on the regional infection control physicians.<sup>248</sup> The regional infection control agencies, along with the governance of authorities, to which the Work Environment Authority and Social Insurance Agency can be mentioned in addition to the Public Health Agency, also meant more governing signals, which are described as having been difficult for organisers and principals to get an overview of.<sup>249</sup>

Yet another actor who affected the governance in a new way, according to some organisers, were the children's and pupils' legal guardians. Organisers and school staff report that there was both strong and shifting pressure from guardians that preschools and schools should both be kept open and kept closed. On the one hand, there were requests to remain open because the guardians had jobs that were essential to society, and on the other hand, that they should be closed due to a concern of infection.<sup>250</sup>

### **The chain of governance came to be perceived as unclear**

Many principals and teachers in the compulsory schools that the National Agency for Education has interviewed have, in the National Agency for Education's pandemic follow-ups, reported that the chain of governance<sup>251</sup> and the decision paths became more unclear during the pandemic. It has in many cases been unclear who should take which decisions. Principals and teachers also experienced that they have received different and sometimes contradictory signals from authorities about what applied for the compulsory schools.<sup>252</sup> One example that was mentioned by an organiser that the National Agency for Education spoke with was that they felt that the regulations regarding infection tracking were not compatible with the GDPR. Similarly, the Corona Commission describes that the authorities generally did not always have a consistent message during the pandemic.<sup>253</sup> The National Agency for Education's impression from the consultations that were held regularly during the pandemic correspond well with this picture. Not least, there were differences during different periods of the pandemic concerning both communicative messages and underlying assessments,

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<sup>248</sup> SOU 2022:10.

<sup>249</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>250</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools] and the Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

<sup>251</sup> The cooperation and management of the Swedish education system is often described as a chain, which is usually called the chain of governance.

<sup>252</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>253</sup> SOU 2022:10.

for example regarding the need for protective equipment, from the Work Environment Authority and the Public Health Agency.

### **Need for support to interpret the central governance**

Several organisers and principals have pointed out that there was a need for support to apply the national guidelines.<sup>254</sup> Just over half of the principals in the upper-secondary schools reported that they had requested support from their organiser due to the pandemic. An even higher percentage of principals also reported that staff at the upper-secondary schools requested support from school management.<sup>255</sup> There are also indications that the needs in the compulsory schools were also great. Many principals and teachers have therefore requested increased clarity both from the public authorities and from the organisers. One example concerned the question of whether or not staff should wear protective equipment and, if so, which staff would receive access to protective equipment. These questions appear to have been handled differently at different schools – with everything from no one receiving protective equipment at all to some employees or all employees receiving access to protective equipment. Some principals have expressed that they felt left alone to make decisions themselves without having the conditions and competence for this, as they are not experts in the spread of infectious diseases. They said that it would have made things easier if the organiser had made decisions and supported the principals with, for example, disseminating information to the pupils' guardians and school staff. In both the compulsory schools and the upper-secondary schools, the support from the principals seems to have primarily concerned support interpreting the Public Health Agency's recommendations and training in digital study resources. However, there are major differences between the organisers in the compulsory schools in how quickly the organisers provided support to the principals concerning how they should cope with the pandemic, as well as differences in what type of support the organisers offered.<sup>256</sup> The consultations that the National Agency for Education conducted regularly during the pandemic with the organisers, among others, confirm the picture that the organisations have had a great need for support in terms of infection control measures, and also that the organisers therefore requested more detailed regulation from the state. The National Agency for Education also sees that the pandemic has meant a greater responsibility for the organiser and that the headteacher's leadership has been dependent on the organiser's support, but also that the leadership has been of extra importance for the organisations.

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<sup>254</sup> See, for example, Swedish National Agency for Education (2021). *Undersökning om covid-19-pandemin. Enkätundersökning bland personal i skolväsendet om covid-19-pandemins påverkan, januari–februari 2021* [Study of the COVID-19 pandemic – Survey of staff in the education system on the impact of the COVID-19 pandemic, January–February 2021] and Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>255</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i gymnasieskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the upper-secondary schools].

<sup>256</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

In the investigations and consultations in which the National Agency for Education asked what support organisers and staff saw needs for in terms of measures from the national level, the focus has not been on support efforts from the Agency.<sup>257</sup> Several organisers have, however, requested that the National Agency for Education provide more support in terms of creating interfaces between different links in the schools' chain of governance. One interface that has been especially highlighted is that between organisers and particularly that between independent and municipal organisers in a municipality or region. The supporting initiatives the National Agency for Education conducted due to the pandemic are described in Chapter 8.

### **Need for local room to manoeuvre and limitations in the responsibility principle**

While there has been a need for more detailed governance, the importance of greater local room to manoeuvre has also been highlighted, as the pandemic required rapid changes and local adaptations at the schools or to meet the needs of particular groups of pupils. Some principals said, for example, that they would have liked to have seen greater flexibility in terms of school closures, as well as in terms of when, and for which groups of pupil groups, remote teaching would be possible.<sup>258</sup> At the same time, the responsibility principle, which meant that the organisers were still the responsible actors for the schools during the pandemic, has generally had several limitations, according to the Corona Commission. Interpreted strictly, the principle can have inhibiting consequences, i.e., that the actors do not dare to act outside their everyday 'space'. The Commission also asserts that in a crisis, the responsible actors not only get more to do but also have to take responsibility for issues that are not normally actualised, which is in line with the picture that the National Agency for Education presents above. The Commission's general assessment is therefore that the responsibility principle should be reconsidered and that there needs to be a strengthening of national leadership during crises.<sup>259</sup>

### **Swedish National Agency for Education's assessment**

The chain of governance and management in the Swedish education system were put to the test during the pandemic. The National Agency for Education's assessment is that the increased central governance in combination with many new governing actors led to the chain of governance in many cases being perceived as unclear. The need for support in the organisations to interpret the many different governing signals that were coming from central sources has been great. Some principals felt that they were left alone with decisions concerning, for example, infection control measures, an area in which they lacked competence. At

<sup>257</sup> See, for example, Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet Delredovisning 4 – Förskolan* [The impact of the COVID-19 pandemic on the education system, Interim Report 4 – Preschool].

<sup>258</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på elevhälsa och arbetsmiljö i grundskolan* [The impact of the COVID-19 pandemic on pupil health and working environment in the compulsory schools].

<sup>259</sup> SOU 2022:10.

the same time, there was also a need for room to manoeuvre to act quickly and make local adaptations. This, in turn, affected the role that the organisers' governance needed to take during the pandemic.

The National Agency for Education therefore believes that it is important that the chain of governance that normally applies in the education system is strengthened, through trust, communication and cooperation between all levels in the chain, from the state to the teacher. This also applies to interfaces between independent and municipal organisers where, in many cases during the pandemic, there was a lack of established forms and forums for dialogue. At the same time, the National Agency for Education sees that insight can be drawn in order to be better prepared for future crises. This is developed in the concluding discussion of this final report; see Chapter 9.

## 4. Case studies autumn 2022 on the pandemic's impact on knowledge development

This chapter presents two case studies that the National Agency for Education conducted in autumn 2022. Both studies are based on interviews with principals and teachers at compulsory and upper-secondary schools in which principals reported in the National Agency for Education's previous questionnaire surveys that there was a loss of knowledge among the pupils. The studies aim to deepen the knowledge about and provide examples of the pandemic's consequences for the pupils' knowledge development. The first study addresses the pandemic's impact on early learning in the preschool class and primary school years 1–3 of the compulsory school, while the second study addresses the loss of knowledge in the compulsory lower-secondary schools and the upper-secondary schools.

### Certain impact on language development and social skills in pupils in preschool class and primary school years 1–3

#### Introduction

In autumn 2021, the National Agency for Education conducted a questionnaire survey of principals and teachers concerning the situation in the compulsory schools during the COVID-19 pandemic. In the study, three in ten principals and teachers assessed that there was some loss of knowledge<sup>260</sup> among pupils in school years 1–3. Every third teacher also assessed that there was some loss of knowledge among pupils in the preschool class.<sup>261</sup> In a survey directed at principals in the preschools, four in ten principals reported that children's conditions to develop in accordance with the goals for preschool had deteriorated during the pandemic. A majority of the principals also assessed that the children had received a poorer transition to the preschool class in comparison with before the pandemic.<sup>262</sup> In both studies, it was established that absences among children in the preschools and pupils in the preschool class and primary school years 1–3 increased during the pandemic and this was highlighted as a key explanation for the loss of knowledge among the pupils in the compulsory schools.

Against the background of the findings of the above studies, the National Agency for Education conducted a smaller interview study in autumn 2022 focusing on

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<sup>260</sup> In the survey, the term loss of knowledge is defined as the situation in which the pupils, as a consequence of the pandemic, have not acquired the knowledge or skills they normally would have acquired.

<sup>261</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

<sup>262</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].

the pandemic's impact on early learning. Interviews were conducted with five principals and twelve teachers (a few of which were supplementary support teachers) at five compulsory schools. The selection<sup>263</sup> consists of schools in which principals in the previous survey reported that there was, to some or to a great extent, a loss of knowledge among the pupils in the preschool class or school years 1–3 during the pandemic. Demographic factors were also taken into some account in the selection. The five schools interviewed vary in size, from just under 200 registered pupils to nearly 1,000. One of the schools is located in an area with socio-economic challenges, two schools are located in socio-economically mixed areas, and two schools are located in areas with good or very good socio-economic conditions.<sup>264</sup>

Because the study only comprises a few schools that had assessed that a loss of knowledge had occurred to some extent, the results are not generalisable to all schools. The interview study therefore does not aim to provide a representative overview of the national situation, but rather to deepen knowledge and present examples of the pandemic's consequences for early learning.

### **Pupils in the preschool class are less equipped from preschool**

Most of the interviewed teachers and principals feel that the pupils' conditions before starting the preschool class changed during the pandemic. At the same time, several respondents expressed that it is difficult to know what is due to the pandemic and what is not. Several of the respondents did not want to assert that the tendencies they see were actually due to the pandemic, while others thought they could assess that they were due to the impact of and consequences associated with the pandemic.

Several stated that pupils did not have the same knowledge and skills with them from preschool as before. This concerns both concrete examples of things that the pupils have not practised as well as more overall abilities. Pupils' language development and development of social abilities were mentioned in most cases. Several describe that it is noticeable that the children have not been in preschool to the same extent during the pandemic. One headteacher, for example, had this to say:

The preschools usually do such amazing preparatory work in this. Otherwise, we usually see in children who haven't gone to preschool for some reason, that this specific child may have difficulties with this thing, but now we saw this quite a lot at the group level during the pandemic.

Several respondents highlight the impact on children's social skills in particular. One teacher who works in the preschool class assesses that the social competence has drastically decreased among the pupils who started in the preschool class

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<sup>263</sup> A number of schools whose principals responded that there had been a large or a certain loss of knowledge in the preschool class or primary school years 1–3 were selected. A total of 12 schools were contacted and asked to participate, of which the five included in the study responded that they would like to participate.

<sup>264</sup> Delmos.se (2022). *Segregationsbarometern* [The segregation barometer].

during the pandemic. The headteacher at the same school says that pupils who start in the preschool class have normally learned different ‘play codes’, sitting in a circle and walking in pairs, in preschool, but that they now see a difference when it comes to such abilities. According to the respondents, an increasing number of pupils lack knowledge on, for example, how to behave in groups, how to show consideration, and how to wait for their turn. It is also described that conflicts are more common between children in the preschool class and that the children have more difficulties cooperating with others. One respondent describes it as more ‘hard work’ when the pupils are not accustomed to being in larger groups. Several respondents also describe that they have perceived the pupils as more ‘immature’ than previously. The following quote from a teacher in the preschool class is an example that illustrates these observations:

We have to spend much more time resolving [conflicts]. These are six-year-olds I work with, they have conflicts, but there are an awful lot of conflicts for these children, because they haven’t had to go through this over and over in preschool. They haven’t had this challenge to meet a lot of other children, because that’s also a thing, speaking of concrete examples. These children have maybe been sitting at home with their mum or dad who was working from home because they had a bit of the sniffles and suddenly they’re with 25 pupils in the classroom. They couldn’t, you know, behave with lots of other children.

Several respondents also emphasise that language skills have deteriorated. The pupils who begin in the preschool class have weaker language skills and poorer vocabulary than previously, according to the respondents from several of the schools. This applies both to children born in Sweden who have Swedish as their first language as well as pupils who have another first language than Swedish. One teacher states:

Those who started last year, there have never been so many children with weak Swedish language skills who were nevertheless born in Sweden.

Another teacher had this to say in regard to the pupils’ linguistic skills when they start in the preschool class:

Even just writing their names. We haven’t had that as a requirement in the preschool class, but most of the children have wanted to do that so it has been a big goal. There has been a desire to be able to write your name before you start preschool class, but that hasn’t been the case in the last two, three years, maybe. There has been a very large number who can’t write their name and have no great need for this either.

At some of the schools, the pupils, according to the respondents, have shown poorer results in the compulsory survey materials in the preschool class and in the assessment support in school year 1, in comparison with previous years. Respondents describe, among other things, that pupils have had a more limited vocabulary and generally poorer language skills. Several respondents, including this teacher, specifically point out that reading has deteriorated.

[I] had extremely many first years who needed support with reading last year and who are not at the finish line yet, but rather I will continue in school year 2 and it is difficult to get there.

Teachers in the preschool class describe that they have had to change their ways of working to address the new needs, including by devoting more time to working with social aspects and in some cases ‘slowing down the pace’ of their teaching. Several also describe that they have had to devote more time to getting the pupils to learn the school environment and get accustomed to school work. One teacher in the preschool class had this to say about how the teaching had to be adapted to the changed conditions:

The social is very clear because we have to spend a lot of energy on, well, conflict management and how to behave. But the language aspects, very much. Also in terms of knowledge to some extent.

One headteacher describes in a similar way how they have had to re-prioritise in the teaching in the preschool class:

You have to work more with the social than before. (...) This is the foundation that doesn't really exist, and then it can be so that Swedish and maths had to sort of take a back seat a bit.

### **Higher absences and changed routines in the preschool are possible explanations**

Several of the respondents believe that the differences they see in comparison with previously may be explained by the fact that many children had high absenteeism from preschool during the pandemic, which has meant that the children didn't acquire the same knowledge and skills before starting school. The National Agency for Education's studies show that many children have been home from preschool, due, among other things, to illnesses, restrictions and concern among guardians. Many organisers and preschools also appealed to guardians on parental leave and unemployed guardians to keep their children home from preschool during the pandemic.<sup>265</sup> Taken together, this has meant that many children have been in preschool less during the pandemic.

Changed routines at the preschools may also have had a negative effect on the children, according to the respondents. The high absence rates of children and staff during the pandemic is reported to have meant that parts of the teaching in some cases had to be cancelled. The restrictions during the pandemic also in many cases meant fewer gatherings, fewer or completely cancelled outings and field trips, and increased time outdoors, which respondents believe may have affected the children. One teacher, for example, had this to say:

It has above all been the social part, I think, that we have noticed. They're not so used to working in groups, it's been more difficult to get them to sit still in their seats, to work for a bit longer. It was noticeable that they'd had a lot of outdoor activities.

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<sup>265</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins konsekvenser för förskolan* [Consequences of the COVID-19 pandemic for the preschools].



### **Changed routines in the transition from preschool to preschool class may have also affected the pupils' school start**

All five schools interviewed had changed their routines for the transition from preschool to preschool class during the pandemic. Before the pandemic, the schools had up to three acclimatisation days for new pupils in the preschool class. During the pandemic, the children didn't get to visit the school before school start and the teachers in the preschool class were also not able to visit the children's preschools. The visits were replaced in some cases by digital meetings or outdoor meetings. At some of the schools, the teachers recorded videos for the new pupils in which they presented themselves and the school. But in several cases, the children hadn't met their new teacher at all until the start of school, not even digitally. Another change was that the children's guardians could not accompany them to the first day of school because guardians were not permitted inside the school's premises. Information meetings with the guardians were also held virtually.

The routines used during the pandemic for handover discussions between staff in the preschools and teachers in the preschool classes vary. Most schools seem to have had digital handover discussions when it concerned children in need of special support, while discussions on other children often had to take a back seat.

Principals and teachers describe that the changes led to there being more children than usual who were sad and worried before the start of school and during the first days. It was likewise described that it was more common for guardians to be worried and unsure of what applied and what routines were in place. This applied in particular to guardians who didn't have older children and who therefore hadn't been involved in a school start before. The contacts with guardians who do not have Swedish as a first language were also made more difficult in some cases when communication could only take place digitally. Principals and teachers describe these changes as negative for children and guardians, but at the same time say that the transition to preschool class during the pandemic has functioned well by and large. This was because efforts were made to comfort and inform children and guardians, for example by meeting guardians outside the school when they arrived in the morning.

### **No widespread loss of knowledge, but some pupil groups have been affected**

We have asked teachers and principals if they have experienced that there was a loss of knowledge among their pupils during the pandemic. The respondents' general assessment is that there has not been any widespread loss of knowledge among the pupils in the preschool class and school years 1–3, but that certain groups of pupils have been hit harder than others during the pandemic. The groups that were particularly highlighted are pupils with other native languages than Swedish, pupils in need of special support and pupils with high absenteeism (which may also be pupils who also belong to one of the aforementioned groups).

In general, the respondents describe that the weaker pupils were hit hardest by the pandemic's consequences. One headteacher states:

The weakest pupils are always the ones hit the hardest. [[I mean] weak because they don't have the same linguistic foundation and parents don't have the same linguistic foundation of course, so they cannot support them in the same way. And they may not have the same financial means to bring in [tutoring] like some of our other parents do. So, that's how it is. When tough periods come, those who need the most are somehow the ones hit the hardest. So we just try to compensate as best we can.

One teacher reasons in a similar way about how the pupils' home conditions and the guardian's level of education affects how much they can help to compensate for pupils' absences:

Some have really high absence rates (...) And those who have parents at home who cannot compensate and maybe don't have the ability to help at home or even understand the importance of practising even if you're home a lot – it's tougher for them.

Pupils who don't speak Swedish at home are described as being harder hit by the pandemic, among other things because pupils who only encounter the Swedish language at school are affected more in their language development in the event of longer absences or repeated absences. One teacher states:

Many of the SVA pupils,<sup>266</sup> they aren't in an environment with the Swedish language and in school they bathe in the Swedish language, so being away from the language, this affects vocabulary and language understanding. So I think about that a lot, that they don't get to take 'language baths' during the day.

Guardians of pupils who don't have Swedish as a first language may also, as previously mentioned, have difficulties supporting the pupils at home with their schoolwork, which makes it difficult to compensate for absences. Several respondents single out Swedish as a second language as the subject in which there has been the greatest loss. At the same time, respondents point out that the loss might not be due to the pandemic, as there were also previously challenges connected to the subject. Several report that there is a shortage of teachers who have the competence to teach in Swedish as a second language, which creates a vulnerability if these teachers are absent for a longer period of time. Respondents also highlight that language is a basic prerequisite for being able to absorb the teaching and that weak skills in Swedish can therefore have secondary effects in other subjects, such as mathematics.

Yet pupils in need of special support was also mentioned as a group that was particularly affected by the changes and the challenges brought by the pandemic. One teacher says that pupils who have needs for structure and clear routines have been particularly vulnerable during the pandemic as the conditions have changed from day to day. Staff absences and other changes that can create insecurity were described to have particularly affected this group of pupils:

Pupils in need of special support who don't have parents who can help... Those children who have parents where there is support from home, even if you're in need of special support, the

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<sup>266</sup> Pupils studying Swedish as a second language.

parents have been able to provide support. But the children who don't have this support from parents [...] the school is extremely important for these children who have a bit of a messy home situation, and there I can feel that the school became a bit insecure because you didn't have the same closeness, the same stability, that which the school is actually really important for, for some pupils.

The same teacher describes how absences particularly affect pupils in need of special support:

After all, we have pupils who have a really hard time learning to read. (...) [The supplementary support teacher] hasn't got in many sessions with some pupils, because they've been sick all the time and they've lost extremely much then.

Some respondents mention specific subjects in which they see a loss of knowledge. One teacher especially emphasizes the practical subjects, such as crafts, music and physical education, because these cannot be made up. One headteacher says that they see a loss of knowledge in mathematics, but also says that it is difficult to determine the cause of it. Respondents at several schools also describe that they see a loss of knowledge in terms of swimming skills because they haven't been able to have swimming instruction to the same extent during the pandemic.

It is also described that specific course components and such that was previously done at lower ages now instead has to be given more time and focus in the higher school years. One teacher in the preschool class says that the children in the preschools during the pandemic haven't practised setting the table themselves, which means that they instead had to practise that in the preschool class. This teacher gives another example:

I got a first year during the pandemic. And I could see that there were some things that they hadn't done in the preschool class that are normally settled when they come to the first year. (...) What was striking was that during the pandemic, we haven't changed clothes and showered in physical education. And it was a big thing last year when they were going to start with that, and it is still a big thing for those in the third year. They're not used at all to changing clothes with other children.

Teachers and principals have been asked if there have been any efforts made in the preschool class or school years 1–3 to counteract a loss of knowledge. The overall picture is that such efforts have been made to a small extent. Teachers and principals generally assess that they will be able to compensate, through the regular teaching, for any loss of knowledge that has occurred among the pupils. The examples mentioned are efforts in the form of extra study support, more special educational efforts and efforts directed at pupils with high absenteeism. One headteacher, for example, says that they took walks with pupils who didn't dare to come to school during the pandemic. Another headteacher says that they invested a lot in digital development, which helped during the pandemic to counteract a loss of knowledge.

### **The loss of knowledge is assessed to be largely due to absences...**

Absences among pupils and staff have been a big problem for many compulsory schools during the pandemic.<sup>267</sup> In one school, the teachers say that they don't think there has been any major loss of knowledge among the pupils in primary school years 1–3 and refer there to the fact that absences among staff and pupils were not so prevalent that it affected the teaching. However, the schools that describe high absence rates among pupils and staff during the pandemic do see that absences have in some cases had a great impact. One teacher describes the 2020 spring semester as a 'lost semester' as there were pupils who were out for a great deal of this semester.

Pupil absences can, according to the respondents, have had greater consequences in the lower grades because it is more difficult to catch up on missed teaching there than in the higher school years. Much of the instruction takes place in the classroom and cannot be made up with homework. Even the schools who worked a lot to make the teaching available digitally point out that working from home is not the same as being in school. This is how one teacher reasons on this:

On the other hand, it's never possible to make up a school day from home regardless, because there's so much extra that is done that cannot be learned by studying afterwards. There are guaranteed to be many who have missed the surrounding things that you actually maybe learn the most from. Just getting a teacher-led lesson with all the discussions and such is gone.

Another teacher had this to say concerning absences in primary school years 1–3:

Many have been absent so incredibly much over these years, and even if you can get extra compensation by taking materials home and working at home, it doesn't give the same thing as being in school every day. You miss so incredibly much when you're at home. Even if you do work at home or do things at home, it's not the same thing at all, and I think you can notice that in the pupils.

It is repeatedly described that it is above all the pupils who need to be in school and meet their classmates in order to, for example, be able to develop their Swedish language skills, who are most affected by absences. As previously mentioned, all pupils are not affected in the same way by absences. The pupils who have guardians who can help them compensate for absences are not affected in the same way, according, for example, to this teacher:

We have pupils who have been out a lot, but who have parents who were able to ensure that they worked at home and could still keep up. This is a little different depending on who has been home.

Some principals and teachers also describe that there have been pupils who were kept home by their guardians due to worry or concerns. Some describe that it has sometimes been difficult to know whether the children really had symptoms or colds or if this has been used as an excuse by worried guardians. One headteacher says that the school still, in autumn 2022, had a higher number of authorised pupil

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<sup>267</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

absences than before the pandemic and that they need to work to get pupils back in school. 'It's easy to get used to being at home', says the headteacher. One teacher in the preschool class said:

We have pupils with high absenteeism and who have had this since preschool. I also think that it's been difficult for some parents (...) because the children would rather be at home (...) It's nicer to be at home because it's hard to come here when you know that your mum or dad or both are at home working.

### **... but also to a sometimes poorer quality in the teaching**

Respondents describe that there was high staff absenteeism periodically during the pandemic, which also often meant daily crisis management. Teachers had to go in and cover for each other to a great extent, which may have affected the quality of the teaching. Several respondents describe that the quality of the teaching therefore decreased during parts of the pandemic. This is the reasoning of one headteacher:

We've had a lot of staff who have been out. We have pupils who've been out a lot. (...) The conditions haven't been the same as they were before. The staff cooperation, where you plan and organise activities, doesn't have the same quality as when you can move freely among one another and talk and discuss and evaluate, but rather it's like walking on tiptoe all the time. So I think that the basic quality has been poorer than what it usually is. (...) The conditions for creating good quality in the teaching have been significantly poorer, and [the pupils] have therefore not gained as much as they would have otherwise, in terms of both values and knowledge.

Teachers that we spoke with also described that the time that would have been spent on planning the teaching instead had to be spent on planning the daily structure and creating functioning 'COVID routines', such as 'COVID recess schedules'. There are also respondents who mention that pupils who were worried during the pandemic, for example of being infected by the virus, have had more difficulty learning and absorbing the teaching. It was also mentioned that teachers' concerns over being infected could sometimes have seeped into their contact with the pupils.

### **It can be difficult for some pupils to reach the goals**

Based on the interviews the National Agency for Education conducted, it does not appear that a widespread loss of knowledge will remain at the schools in question among pupils in primary school years 1–3. At the same time, several respondents express that they see that some pupils will have difficulties regaining the lost knowledge and that achieving the goals will be difficult for these pupils. One headteacher, for example, reasons that:

We probably see a small loss among some pupils, and we may have difficulties getting them to catch up. It would be nice to have even more resources so that we could give these pupils more than what we are able to now. So there is probably a risk that we might not quite reach the goals for all of these pupils in the future either, unfortunately. I can definitely see that.

The respondents stress that these pupils would very likely have had a hard time reaching the goals even if the conditions had been normal, but that the pandemic

has amplified the challenges. Several also mention that they will need to continue to work with social competence among the younger pupils.

### **Work with values has been de-prioritised during the pandemic**

According to some respondents, values-based work has had to take a back seat during the pandemic. Teachers and principals give examples of community-building activities that disappeared during the pandemic, such as theme days, sponsor systems, pupil councils, food councils, Lucia processions and school graduations. This has, some say, affected the climate at the school and weakened the feeling of community. Several schools are now working to recapture this by reintroducing the activities. One headteacher speaks about joint activities being paused during the pandemic:

At the start of the semester, we always conduct introductory values-based work with the pupils, everything from group activities to sponsorship systems to pupil council meetings with different school years, food councils, cafeteria hosts. All of these components have had to take a back seat because we weren't supposed to mix the groups (...) so that has been lost. And I think actually that this has affected the climate somewhat in the school (...) both from a conflict perspective and that things are happening, linguistically how the pupils are and act towards one another, that we've put quite a lot of focus on during this time to try to work with and get it to improve.

Even the fact that the classes have been divided up more during the pandemic is described to have affected the feeling of community at the school. It is described as a major adjustment for the pupils when there are now, after the pandemic, more common activities, meetings in the auditoriums and shared recesses instead of recesses and gatherings by class.

### **The pandemic has in some cases led to changed ways of working**

Most of the interviewed principals and teachers believe that they will return to the ways of working they had before the pandemic. This concerns, for example, transition routines from preschool to preschool class. One school says, however, that they will not reintroduce transition discussions with preschools for children who are not in need of special support. They have also lowered the number of acclimatisation days and will also not go back to visiting the children's preschools. The reason for this is that they thought the activities took too much time and that the transition to the preschool class has shown to work well without these activities.

One change that several respondents assess will remain is offering guardians the opportunity to participate digitally in parent meetings and parent-teacher conferences. This is described to have increased accessibility for guardians, and it has become significantly more common for more than one guardian to participate in the conferences.

Some schools describe in the interviews that they published lesson planning on digital platforms during the pandemic, and to some extent adapted the teaching so that absent pupils and their guardians could follow the teaching from home. These schools also assess that they will continue with this digital lesson planning. This has also meant that teachers and pupils have strengthened their digital competence, which is seen as a positive effect of the pandemic.

### **There is a need for more special needs support, pupil health services and competence in Swedish as a second language.**

On the question of whether there is a need for continued support to be able to compensate for the loss of knowledge, several teachers and principals say that there is a need for support for special education efforts and strengthened pupil health services. One teacher says that the youngest children have not been prioritised by the pupil health services and that it is a problem that special education resources are deployed first in the higher school years. When the need for special education efforts increased during the pandemic, it became clear that the lower school years were de-prioritised. There is also a need for more supplementary support teachers who can be in the classrooms providing support. One supplementary support teacher states:

I want to work at both the group and class levels, and I love being able to be in the class, supporting, seeing, because this helps the well-being of many pupils. But now there is a whole bunch of only individual or smaller groups in my schedule, which is jam-packed, and it is probably a consequence of the pandemic that I feel that I must give these pupils ... because this is their plan of action, after all (...) But then all this with being able to come in and support those who are a bit on the borderline, no, that doesn't exist right now.

Several respondents also highlight the need for more teachers with competence in Swedish as a second language, something that has proven to be vulnerable during the pandemic. One headteacher says that they would like to see a skills upgrade for all teachers in Swedish as a second language. It was also mentioned repeatedly in the interviews that investments are needed to increase swimming skills, because many pupils did not have swimming instruction to the extent they needed it during the pandemic. Several respondents, such as this headteacher, also express that they see a need for staff reinforcements overall in order to compensate for the consequences of the pandemic:

I am thinking of staff reinforcements, in the form of special need teachers, supplementary support teachers, compulsory school teachers, social. That there are staff reinforcements put in for a period to be able to compensate and strengthen and take care of these things.

## **Conclusions**

The National Agency for Education conducted an interview survey in autumn 2022 with teachers and principals at five schools who responded in a previous survey that there had been a loss of knowledge in the preschool class or primary school years 1–3 during the pandemic. The study is not representative for other schools, but rather aims to deepen knowledge and provide examples of how the loss of knowledge is described by teachers and principals at these schools.

One overall conclusion of this study is that the pandemic has shone light on and reinforced several of the challenges that were already present in the schools. The pupils who had schooling-related challenges even before the pandemic are assessed to have been hit hardest by the consequences of the pandemic. This applies in particular to pupils with high absenteeism, pupils in need of special support and pupils with another native language than Swedish. These are groups of pupils that have also been highlighted in previous studies as particularly vulnerable during the pandemic.

Most respondents assess that there has been a relatively large impact on the pupils' language development and social skills during the pandemic. Pupils in the younger ages are reported to have poorer knowledge of how to behave in a group, which has led to further conflicts and meant that teachers have had to spend a lot of time strengthening the pupils' social abilities. This particularly concerns pupils in the preschool class and is assessed to be a consequence of high absenteeism from preschool. It is clear in the interviews that preschool is perceived to be of great importance for children's conditions prior to school start and for children's social and language development.

Several teachers and principals in the study point out that the pupils' home conditions took on increased significance during the pandemic, which was explained, among other things, by many pupils (and children in preschool) having high absenteeism and staying home with their guardians. Staff absences and poorer access to special needs support also seem to have left some pupils more alone in their knowledge development. This has affected all pupils to some extent, but particularly those pupils who do not have guardians who can provide support in their schoolwork or who do not speak Swedish. For pupils who only encounter the Swedish language at school, longer or repeated absences can have a major impact on their language development. The differing conditions of guardians to support pupils who have been absent is repeatedly highlighted as crucial for whether or not a pupil's absences have entailed a loss of knowledge.

The schools in the study make partially different assessments of the magnitude of the loss of knowledge in the preschool class and in primary school years 1–3. It is clear that the pandemic has affected schools in different ways and to differing degrees depending on the spread of infection and the schools' conditions in general. There is a great variation in which type of area the schools are located in – from areas with socio-economic challenges to areas with very good socio-economic conditions. Earlier studies on the pandemic's impact on the compulsory schools also show a connection between the guardians' level of education and the assessment of a loss of knowledge at the school.<sup>268</sup>

Most teachers and principals assess that they will be able to compensate through their teaching for the loss of knowledge that occurred during the pandemic, but that there are some pupils who may have difficulties reaching the goals. Repeated

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<sup>268</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].



mention was made of the need for more special education efforts and strengthened competence in Swedish as a second language in order to give all pupils the support they need.

## Continued loss of knowledge among some pupils in the lower- and upper-secondary schools

### Introduction

In autumn 2021, the National Agency for Education conducted surveys aimed at principals and teachers as a part of the National Agency for Education's mission to survey the consequences for the education system of the COVID-19 pandemic. A large proportion of the principals and teachers who responded to the surveys assessed that there had been a loss of knowledge, to some or to a great extent, among the pupils during the pandemic. This applied both in the compulsory schools and in the upper-secondary schools. One subject that was particularly singled out was mathematics.

In autumn 2022, the National Agency for Education followed up the surveys with an interview study. The purpose was to get a more in-depth and updated overview of the potential loss of knowledge in the compulsory lower-secondary schools and in the upper-secondary schools. Four compulsory schools and eight upper-secondary schools are included in the study. The interviews were conducted with principals, teachers and pupil health services staff, with a total of 50 respondents. The interview study focused on describing why the loss occurred at these schools, how such a loss of knowledge might take shape, and what implications it could have. The interview study also touched on how the schools have worked to help the pupils catch up in their knowledge development, how the situation looked in the 2022 autumn semester, and what needs continue to remain at the schools.

The selection consisted of schools in which the principals in the previous questionnaire survey stated that there had been a loss of knowledge in mathematics. The selected schools differ, however, in terms of size of city, town or locality in which the school is located, number of pupils at the school, proportion of pupils with foreign backgrounds, number of pupils with guardians with post-secondary education and, for upper-secondary schools, schools with different programme offerings. Due to the limited selection, and the fact that the study only includes schools that assessed there had been a loss of knowledge, the results are not generalisable to all schools. Yet the conditions described are examples of a situation that all schools have to deal with.

### Greater loss of knowledge at certain schools and among certain pupils

One overall result in previous studies of the pandemic's consequences is that a loss of knowledge has occurred to different degrees at different schools. It is also

clear in this study, although there are relatively few schools included, that there are major differences between schools in terms of how large the loss of knowledge the pupils are assessed to have.

### **Large differences between the schools...**

The differences between the schools included in the study are mainly due to which groups of pupils dominate at each school and to the schools' ability to meet the pupils' needs. The schools' conditions to give the pupils the education they are entitled to are very different, and thus the consequences in the form of loss of knowledge during the pandemic are also different. This applies both to the degree in which the pupils lost knowledge in teaching during the pandemic and to the degree in which the pupils have caught up in their knowledge development.

### **...and individual differences between pupils**

According to the respondents, nearly all of the pupils were affected by some type of knowledge loss during the pandemic. It is described as hardly surprising that knowledge acquisition was affected considering the transition that the pandemic entailed – new forms of teaching, high absenteeism and increased requirements on pupils' abilities to plan their own time. Although the respondents describe that the pandemic affected all pupils, they emphasise that certain groups of pupils lost knowledge to a greater extent than others. Less independent, and in this respect more vulnerable pupils, were affected to a greater degree. The same applies for pupils with poorer language skills.

All pupils were not affected in the same way, however. Some pupils, albeit few, were assessed in the interviews to have benefited from the forms of teaching during the pandemic. This most often concerns pupils who for various reasons have had difficulties with social interaction and are more comfortable with remote teaching. At some schools, the respondents also say that high-performing pupils, particularly girls, benefited because they had more positive and peaceful study environments at home.

### **Continued loss of knowledge among some pupils**

Somewhat different situations emerge when the respondents describe the loss of knowledge during the 2022 spring semester and at the start of the 2022 autumn semester. A large proportion of the pupils described as independent and motivated have generally managed the demands placed on them. They have succeeded in making up for the loss of knowledge during the pandemic, either on their own or with the help of efforts from the school (which will be described further on in this chapter). At some schools, the respondents describe that it is above all girls who managed to catch up on their own.

In the upper-secondary schools, differences are also seen between schools and groups of pupils that are connected with which upper-secondary programmes the school offers and thereby which subjects and courses the pupils are studying. The respondents describe that the consequences have been greater for pupils in the higher education preparatory programmes, which is consistent with results from

the National Agency for Education's earlier studies on consequences of the pandemic.<sup>269</sup> This is partially explained by the larger scope of courses that have been especially critical in higher education preparatory programmes – particularly the higher courses in mathematics – but, above all, because these programmes have had more remote teaching than vocational programmes.

### **Absences explain part of the loss of knowledge**

In the National Agency for Education's previous studies on the pandemic's consequences for the education system, it emerged that the loss of knowledge was largely due to increased absences among pupils.<sup>270</sup> This applies particularly to the compulsory schools, but also to some extent to the upper-secondary schools.

### **Consequences of pupil absences in both lower-secondary and upper-secondary schools**

That absence was a factor behind the loss of knowledge is confirmed in this interview study. In the compulsory schools, absences were periodically high depending on illness and family quarantine, which of course meant that the pupils missed out on large parts of the teaching. Due to the randomness of contagion, there are great differences in how much and what types of knowledge the compulsory school pupils missed out on. This is described by the respondents in the interviews, who also mention that absences could have had different consequences for different pupils depending on what support they had received from home as well as the pupil's own drive to work to catch up on schoolwork.

Absences have also been problematic in the upper-secondary schools. Absences were described, however, to have been lower than normal during the first semester of the pandemic, spring 2020, because the teaching was largely conducted remotely. Absenteeism was also not particularly noticeable during periods of alternating remote and face-to-face teaching – partly because teachers could conduct teaching even if they had symptoms, and partly because pupils with symptoms could participate in the instruction. At the same time, teachers describe that attendance, in the sense that the pupils connected to the digital teaching, was not a guarantee that they actually participated in the teaching.

Absences increased in the upper-secondary schools during the semesters of the later phases of the pandemic. According to the respondents, this was due, among other things, to the removal of the opportunity to offer remote teaching, while the recommendation to stay at home with the slightest symptom remained in place. Another reason that was mentioned is that the pupils gradually lost motivation and discipline, which is described further in a later section.

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<sup>269</sup> In the National Agency for Education's survey aimed at principals in the 2021 autumn semester (presented in the report Swedish National Agency for Education (2022). *Kunskapstapp och betyg i gymnasieskolan under covid-19-pandemin* [Loss of knowledge and grades in upper-secondary schools during the COVID-19 pandemic]), it emerged that a higher proportion of the principals see a need for efforts to counteract a loss of knowledge for pupils in the higher education preparatory programmes than for the vocational programmes.

<sup>270</sup> Swedish National Agency for Education (2022). *Kunskapstapp i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].

### **Absences among teachers meant missed teaching**

Teacher absences was another reason for the loss of knowledge among the pupils, in that teaching could not be conducted at all or only to a limited extent. This particularly concerned the compulsory schools. The Government decided during the pandemic to keep the compulsory schools open for regular teaching as far as possible. The opportunities to conduct remote teaching in the lower-secondary schools varied during the pandemic, which is described in the section *Remote teaching became a new temporary working form in lower-secondary and upper-secondary schools*, which meant that it was sometimes possible to reschedule to remote teaching when the teachers needed to be at home due to illness or symptoms.

Teacher absences meant lost teaching even in the upper-secondary schools, albeit not to the same extent as in the compulsory schools because the upper-secondary school teachers were able to carry out teaching remotely.

The respondents describe that it was more difficult than normal to find substitute teachers during the pandemic, in both the compulsory schools and in the upper-secondary schools. The need for substitute teachers increased with teacher absences, while at the same time the access to substitute teachers decreased due to illness and restrictions. This led to the teaching sometimes needing to be cancelled during the pandemic. Teachers also describe the problem that teaching conducted by substitute teachers involves a different structure and content than teaching according to the regular teachers' planning.

### **Absences were also high during the 2021/22 academic year, but seem to have returned to normal in the 2022 autumn semester.**

The most problematic period in terms of absences at the interviewed schools was when the Omicron variant of the coronavirus came, which led to a high spread of infection in late autumn/winter 2021/22. During this time, the main position was that teaching in the compulsory schools and upper-secondary schools should take place on site in the schools. At several of the interviewed schools, the respondents describe that absences remained high up into the 2022 spring semester.

Most of the upper-secondary schools included in the study state that they have had difficulties with pupil absenteeism because the periods with remote teaching and quarantining in the event of symptoms have affected the pupils' views on attendance. Most upper-secondary schools also mention that the return to regular face-to-face instruction in autumn 2021 was difficult for many of the pupils and that they needed to teach the pupils how to be in school again. Although most pupils, according to our respondents, perceived the return as positive, the pupils were still in the habit of being able to participate in instruction remotely.

According to the principals of some of the schools:

Last autumn, we needed to teach pupils and staff to be at school again. It went well, but it took some time. There are still pupils who ask if they can't be at home remotely instead.

Now we've got the pupils to be in school again. Have had more difficulties with attendance than previously for pupils who need to learn to be in school.

At most of the interviewed schools, the respondents describe that they have not noticed any abnormally high absenteeism during autumn 2022, although it was stated in many cases that this was too early to assess at the time of the interviews. At the schools where the respondents see higher absences even in this autumn semester, it is individual pupils who have problematic absenteeism. The number of pupils with problematic absenteeism is, however, described to have increased. In particular, the respondents emphasised that pupils who for various social or study-related reasons were happy with remote teaching have had particular difficulties readjusting to face-to-face instruction. This group benefited from the situation during the pandemic, but became more disadvantaged when the teaching returned to normal forms.

### **Remote teaching assessed to have caused loss of knowledge**

The teaching during the pandemic was greatly impacted by several longer periods of remote teaching, particularly in the upper-secondary schools. The principals and teachers interviewed at the upper-secondary schools have described the limitations in this teaching as primary causes behind some of the pupils not reaching as far in their knowledge development as they otherwise would have done.

### **Reduced motivation and discipline among the pupils**

Respondents describe that the pupils initially, during the 2020 spring semester, thought that it was fun to switch to remote teaching. The pupils perceived greater freedom and flexibility and clear benefits in that they didn't need to get up early to get to school. There was also great creativity and something of a pioneering spirit among the teachers preparing for working with the possibilities of digital technology.

But with time, however, the disadvantages and limitations became increasingly noticeable. The teachers describe that the teaching often became more meagre when conducted remotely. The teachers describe that, at first, they had a lot of creative solutions for how remote teaching could be carried out but that they quickly ran out of ideas. When the variation of the teaching was based more than usual on the teachers' ingenuity, there were also greater differences than usual between different teachers' teaching, with some teachers having greater success than others. Many of the pupils lost enthusiasm, motivation and discipline, and their conditions to take responsibility for their own learning became increasingly significant when the periods of remote teaching became long. This is how a couple of the teachers expressed it:

There were long periods remotely, and in the beginning the pupils were engaged, but then the pupils lost routines, etc. Some of them kept up, but there weren't so many who had the energy. The pupils didn't learn quite as much as they otherwise would have.

What has been difficult has been to get the pupils engaged. Quite a lot of discipline is required for a teenager to have the energy to keep up and take that responsibility. It was a big responsibility for the pupils and for some pupils, far too big.

One conclusion that the interviews confirm is that this meant that the knowledge development became limited in the subjects that more than others required perseverance and independent work from the pupils. Subjects that could be based more on the teachers' reviews were affected to a lesser extent. One headteacher at an upper-secondary school said the following:

In the digital agenda and in the digital encounter, too much focus became shifted to their own efforts, that they had to solve things themselves. And a lot of pupils experienced problems with this.

### **The relational in the learning described as very important**

Something that the respondents point out as a decisive reason for the loss of knowledge is that most pupils missed the social context at school. Both in contact with friends and with teachers. Many pupils have a great need for direct contact and presence for their learning, and teachers also need to establish and develop their relationships with their pupils. Several interviewed teachers say that an essential part of the teaching profession disappeared with distance teaching. One teacher explains:

If the teaching profession was only about conveying knowledge, the pandemic would have worked just fine. But it is about so much, much more. And that these pupils who think that they lack strategies and such, what we also missed with those who started Year 1 when there was a pandemic, that's that we can't start working on the relational. Winning the pupils' trust, you know, creating a good study culture, is incredibly difficult through a screen.

The teachers also say that their work became much more boring and monotonous. One teacher said:

A lot of the fun parts of being a teacher disappeared. The human encounter. It became very instrumental, making sure to do what was necessary.

Several of the interviewed teachers felt that it became more difficult to provide individual support remotely. This unless the pupils themselves took the initiative to contact the teacher, which was described as unusual with the exception of certain particularly driven pupils. According to the respondents, many pupils found it far too exposing to raise their hand in the digital classroom to ask a question. One headteacher describes this as follows:

It's like, all this relational stuff disappears, and in some way it became a knowledge transfer and one-sided teaching, but all of this care, everything that happens in between, was not there, it couldn't be provided. And there, it's very personal. Some don't have any need for this at all and others have a huge need.

### **The pupils' well-being has been affected during the pandemic**

Both in the compulsory schools and in the upper-secondary schools, the pupils' schooling was affected by the very special societal situation brought by the

pandemic. The pupils in the upper-secondary schools were most affected because they were screened off from the school's social context and because the pupils were referred to a computer screen at home for long periods. In the interviews, the respondents state that they have seen signs that the pupils' well-being, self-esteem and motivation were affected by this, which in the long run could have had consequences for the pupils' opportunities to acquire knowledge. However, several point out that it was difficult to know how many of their pupils had poorer well-being during the pandemic – some say that it is pupils who had high absenteeism before the pandemic or suffered from mental illness who had poorer well-being during the pandemic. Others perceive that virtually all pupils at the schools had poorer well-being or that new groups of pupils sought out the pupil health services. One representative for pupil health at an upper-secondary school expresses this as follows:

Yes, but I would still say that in the pupil health services, we encountered a new group of pupils. /.../. The pupils who kind of keep their heads above the water, they manage, we don't have much to do with them. If you have them in health discussions, as a school nurse you can see some risk factors when it comes to managing an upper-secondary education, but they still have enough to manage it. /.../. And then came the pandemic and just 'boom!', then it is this group that we have seen, that slips down and can no longer cope.

A negative change in the pupils' psychosocial well-being can have many causes. In the interviews, respondents who have been working for a long time in the schools describe that the pupils' well-being has been deteriorating for many years and it is difficult to determine how much is caused by the situation during the pandemic. But it clearly emerges that the respondents are perceiving a further deterioration in recent years. On the one hand, the pupils had poor well-being from being screened off from classmates, teachers and other adults in the school, and on the other hand, the teachers felt that it was more difficult to get to know the pupils and thereby see their needs. A couple of respondents further point out that the pupils, once they perceived a failure, lost even more motivation to study to catch up.

It was repeatedly mentioned in the different interviews that the pupils as a whole do not have the same drive and motivation as usual for their age. One upper-secondary teacher expresses this as follows:

I said goodbye to a Year 3 class now, and I feel that many, you know ... they lost their desire, they lost their energy, they lost a lot of their drive from being at home, and there was a loss of knowledge as well. But the question is, which is the chicken and which is the egg? I mean, I think it's hard to say, they just sort of lost their desire for school.

Some of the schools interviewed experience that the pupils' well-being is still poorer than usual. As an example, it was mentioned that several pupils who began their first year in upper-secondary in the autumn of 2022 need adaptations and that more pupils request support from the pupil health services. Several respondents further point out that they experience the pupils as more childish now than what the teachers are used to for young people in the ages they teach. The respondents also state that they still notice poorer self-confidence and lower

maturity levels among the schools' current pupils. One respondent in the pupil health services says this about the current school year 9:

It's so hard to know if this is due to the pandemic or not, but I think we feel rather generally with both school year 9 classes that it's a bit sluggish. /.../. They have no energy. You have to have that sort of moral sermon now and then, that: 'It's not me actually who needs a grade in maths, but you guys have to like do things and you have to take responsibility yourselves for there to be a peaceful working environment during lessons'.

### **The loss of knowledge is greatest in the theoretical subjects that build on progression**

The subjects affected by a loss of knowledge differ to some extent over time. In the compulsory schools, all subjects were affected to some extent by periodically high absenteeism. In previous studies, the National Agency for Education has seen that modern languages, mathematics and Swedish were particularly impacted by a loss of knowledge in the compulsory schools during the pandemic.<sup>271</sup> In this study, it is above all the compulsory schools that point out that they still see a loss of knowledge in mathematics – a subject that we delve more deeply into below.

In the upper-secondary schools, during the periods of remote teaching, it was primarily teaching in subjects with practical course components that were difficult to carry out, which is why the pupils received limited instruction in these subjects. However, it has been possible to subsequently catch up on this loss of knowledge. The loss that still largely remains in the schools in question primarily concerns mathematics and modern languages. Some of the respondents also mentioned the subject of physics. As concerns modern languages, the respondents say that it was a challenge to have verbal exercises with the pupils during remote teaching. Trips abroad were also rare. The spoken language teaching was instead often replaced with written assignments.

Common to both languages and mathematics is that they are subjects that clearly build on progression from lower to higher courses, i.e., knowledge from earlier courses is a prerequisite for moving on to higher courses. They are also subjects in which knowledge acquisition places great demands on the pupils' abilities and conditions to work independently. The respondents describe that independent work is difficult for the pupils in these subjects, and that the requirements for this specific ability is a reason that many pupils were adversely affected by remote teaching and increased absenteeism.

In both the compulsory schools and the upper-secondary schools, some of the respondents also describe that the pupils' reading comprehension deteriorated during the pandemic. They assess that it is difficult to say what is a consequence of the pandemic, but they see a clear change. This concerns both concrete knowledge measurements in which the pupils have had poorer results than usual, and a perception by the teachers that the pupils have more difficulty

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<sup>271</sup> Swedish National Agency for Education (2022). *Kunskapstappet i grundskolan under covid-19-pandemin* [Loss of knowledge in compulsory schools during the COVID-19 pandemic].



understanding written instructions. One teacher at an upper-secondary school describes this as follows:

If I am going to explain something via textual context, then ... it's not certain that the pupils understand my explanation. And I think this group of pupils has increased. I mean, those who need verbal explanations to very, very much. Before, it was enough if you explained on the board, theory, calculated examples on the board with the help of the pupils. A fairly large group of pupils understood. Today, there are significantly fewer who absorb what is happening up on the board.

At the same time, some of the respondents say that the loss of knowledge exists in all subjects, both in abilities and in the core content. One interpretation is that there are large variations depending on which teaching the pupils have missed or had particular difficulties with.

### **Loss of knowledge in mathematics**

The National Agency for Education's earlier studies on the consequences of the pandemic show that a particular loss of knowledge has occurred in mathematics. The schools in this study were selected because they had previously stated that the pupils had a loss of knowledge in mathematics. The interviews have therefore focused on mathematics to describe why there has been a loss of knowledge in this specific subject, and how it differs from other subjects in which the pupils have managed better.

### **Difficult to teach mathematics remotely**

According to the respondents, the main reason for the high loss of knowledge in mathematics is that it is a subject that is difficult for pupils to manage even during normal circumstances. This was even more difficult for the pupils during the pandemic, partly due to the high absenteeism, and partly during the long periods of remote teaching at the upper-secondary schools.

Both teachers and principals report that this subject was particularly difficult to teach when teachers and pupils were not in the same physical location. Teachers in other subjects, for example, could use digital interfaces and tools when teaching remotely, but suitable tools were lacking for the subject of mathematics. One mathematics teacher at an upper-secondary school describes this as follows:

There in the beginning, I was out at my other school, and I had to run around and talk to my colleagues: 'How are you doing this?' And in maths, it was a bit problematic: 'What are we supposed to do, you know?' How should we demonstrate?' We usually maybe write on the board and say: 'How should we solve this?' And there was no one who could give this support.

It has also been difficult for the teachers to carry out the teaching itself without the direct contact with the pupils that is necessary to know if the pupils are keeping up with the reviews and to catch the pupils who are not understanding. One teacher at an upper-secondary school describes the remote mathematics instruction as follows:

It becomes like a darkness, there's a screen with initials that I just sit and look at, just: 'Hey, have you got it now?' This is equatio... are you with me?' Normally, I see if they are keeping up. And if I don't see that, I have to do something about it, like my entire interaction ... and the interaction is just zero, almost anyway. It is very, very much reduced, and that is really difficult to handle.

The remote situation has also meant limited opportunities for the teacher to support the pupils continuously, which is also described as particularly important in the subject of mathematics. The teachers explain that in remote teaching, they can demonstrate and calculate practically together with individual pupils. It is often enough for the teacher to help the pupil for a short while for the pupil to be able to continue to calculate on their own. In face-to-face instruction, the pupils can also ask a friend for help if they don't understand, which has been significantly more difficult in remote teaching.

### **Mathematics is associated with poor self-confidence**

The teachers feel that they get fewer questions from the pupils when the teaching was carried out remotely. According to what emerges in the interviews, there are particular reasons why the pupils do not like to ask for help from the mathematics teachers, and especially in a situation in which the entire class is online at the same time on a screen. A headteacher at an upper-secondary school explains this as follows:

If they're participating remotely, no one dares ask a question in front of everyone, because the camera then becomes directed right at the person speaking /.../. I think it's much more difficult to show that there is something you don't understand than in a classroom, where you can quickly get help from a friend or move on without drawing too much attention.

According to the respondents, the subject of mathematics is associated to a greater extent with poor self-confidence than the other subjects. If the pupils don't understand mathematics, they associate this with a lack of talent and intelligence and are more likely to avoid asking for help than showing that they don't understand. The pupils' poor self-confidence when it comes to mathematics thereby risks amplifying their difficulties. One headteacher at an upper-secondary school expresses this as follows:

What I think distinguishes maths from many other subjects is that they are scared to be perceived as stupid. And in remote teaching, this became more difficult. And when they can't come to our resource centre either, which is otherwise a major source of support, then they don't get the space to get help. And the more time that passes, the stupider they think they are and they're embarrassed to call attention to the fact that they haven't done it.

These descriptions are in agreement with research showing that the majority of pupils with low performance in mathematics have so-called 'maths anxiety', and that pupils with maths anxiety often avoid studying mathematics and therefore learn less of the subject.<sup>272</sup>

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<sup>272</sup> Karlsson, I. (2019). *Elever i matematiksvårigheter: Lärare och elever om låga prestationer i matematik*. [Pupils in mathematics difficulties: Teachers and pupils on low performance in mathematics.]

### **Small margins to make up for missed teaching in mathematics**

It has also emerged that the so-called ‘content crowding’ in the mathematics courses, i.e., that the subject is perceived to have extensive content, makes mathematics teaching particularly sensitive to absences among pupils and teachers. There is, according to our respondents, quite simply no room to repeat course components in mathematics. A couple of teachers say that they often fall behind in their planning when they have needed to bring in substitute teachers who have a different structure and content than in the regular teachers’ planning. One teacher says the following:

It only takes a few days for us to fall behind in the course. It’s not possible to reverse and go back. The courses are just so packed. You have to go on anyway.

Some of the mathematics teachers also point out that mathematics is a subject that by its nature contains a lot of abstract content and concepts that the pupils need to understand, such as algebra and functions, for example. The pupils need to understand mathematics; it’s not enough to only try to calculate to the right solution, and at the same time, it is a subject that is difficult to study on your own. It is thereby critical in the sense that additional aggravating conditions mean that many pupils give up. One teacher states:

Maths is a bit special in that there is so much you need to practice and train on your own. Otherwise reading and listening to a text, reading and retelling, many find it a little easier to deal with that and work a bit more independently or with a little more support. But in maths, so much rests on you really needing to exert yourself.

### **Difficult for teachers to assess pupils’ knowledge in mathematics**

In the interviews, the respondents at some schools say that it is individual pupils or certain groups of pupils that have lost knowledge in mathematics and that more pupils than usual have received F grades. At other schools, the respondents express that the loss of knowledge in mathematics concerns more or less all pupils at the school or in a school year, that the pupils’ grades in mathematics in general have deteriorated but that this does not necessarily mean that more pupils failed. One teacher at a compulsory school says this:

Without what the remote [teaching] did to them, they might have had a D in mathematics or a C, and now they’re down a notch. So it was probably not that there were so many more pupils in this school year we gave Fs to than what we would have had without. Maybe a few, but not many. But above all, there were very many who ended up at the E level, and who may otherwise have landed at a D, maybe even some who would have managed to come up to a C.

At the same time, the respondents at other schools in the study say that the pupils’ basic knowledge in mathematics is not as firmly secured as usual, but that this has not led to any change in grades. The picture that teachers describe of the loss of knowledge in mathematics needs to be weighed against the fact that new subject syllabi in compulsory school mathematics were introduced in the 2021/22 academic year; see Appendix 2. The change entails a bigger step from

compulsory school mathematics to the upper-secondary schools – in a situation in which the pupils’ prior knowledge from compulsory school mathematics is also described as lower than normal. As also pointed out by the interviewed mathematics teachers, it is difficult to ascertain what is due to the new subject syllabi and what is due to aggravating circumstances during the pandemic. To distinguish between changes due to the impact of the pandemic from changes in the subject syllabi, this development will need to be monitored for several years into the future.

### **The loss of knowledge differs between different school-year cohorts**

The consequences of the pandemic in terms of lost knowledge for pupils differ between pupils in different school-year cohorts. The loss of knowledge in different subjects and courses varies between the groups of pupils depending on which compulsory school year, or upper-secondary academic year, the pupils were in during the most critical periods of the pandemic.

At the schools included in the study, the respondents from the compulsory schools state that the prior knowledge that the pupils had with them when they started lower-secondary school has deteriorated in recent years. The pupils who started in school year 7 in the autumn semester of 2022, i.e., those born in 2009, are described in particular to have lower prior knowledge than previous school-year cohorts. For the compulsory schools, our respondents also emphasise pupils born in 2006, i.e., the pupils who left compulsory school in the 2022 spring semester and of which the majority are now in the first year of upper-secondary.

Teachers and principals in the upper-secondary schools also mention pupils born in 2006 as particularly affected by a loss of knowledge. They see the same thing as the respondents in the compulsory schools, namely that the pupils who started upper secondary in recent years have arrived with lower prior knowledge than usual. The respondents from the upper-secondary schools also mention that several pupil cohorts that have already left the upper-secondary schools have done so with a loss of knowledge. The pupils who graduated upper-secondary in the spring of 2021 and 2022, of which most are born in 2002 and 2003, are also stated to have left upper secondary with a loss of knowledge.

### **The schools’ efforts against loss of knowledge**

At most of the schools included in the study, the respondents describe that there continues to be a loss of knowledge among certain groups of pupils or in certain school-year cohorts. All schools in the study have implemented some form of efforts to counteract or compensate for the pupils’ loss of knowledge. The majority of the efforts are directed at the pupils who have received failing grades, or are at risk of failing. They are more rarely directed at pupils whose grades have dropped one or two levels but are still over the passing limit.

In the interviews, it emerges that the efforts are primarily conducted within the schools' existing special support and extra adaptations. These are efforts that include both individual support from supplementary support teachers and support in special teaching groups with increased staffing and/or special need teachers. Some schools have invested in double staffing in lessons in English, mathematics, Swedish and Swedish as a second language, and others have invested in surveying the pupils' needs for support. Homework help after school and holiday school have also been common. In several cases, the respondents describe that they have chosen to increase or strengthen existing support due to the pandemic. For example, the schools have employed resource teachers and increased the number of hours for homework help.

The respondents also mention efforts that have been made in addition to the regular support efforts during the pandemic, often with special funding. This largely concerns reinforcements with more teaching and teacher resources – several schools have arranged extra teaching sessions outside the schedule in the subjects in which pupils are at risk of failing, make-up courses for the pupils who received failing grades in a subject, and expanded holiday school scheduled during the autumn and Easter holidays.

### **Lack of resources limits efforts against loss of knowledge**

Based on the interviews, the National Agency for Education sees a number of limitations in the schools' work to compensate for the loss of knowledge. This primarily concerns limited resources such as money and staff. The resource limitations vary between schools under different organisers. Such differences have meant different conditions for handling the challenges of the pandemic.

The limitations are also most noticeable at the schools in the study with the greatest need for resources for extra staff. Insofar as it is possible to find the extra staff needed for the efforts, there is sometimes a lack of financial possibilities for such reinforcements. One compulsory school hired a resource teacher during the pandemic and the headteacher says the following:

Now we have pandemic funding from you [National Agency for Education]. But it's complicated with money that is earmarked over a limited time. We would have needed this person here always with us but can't afford them.

One concrete limitation concerns the difficulties in finding substitute teachers, as absences among teachers have been and still are pronounced. There has also been a particularly large shortage of substitute teachers during the pandemic due to the spread of infection in combination with increased needs. The schools that normally have double staffing in the core subjects could not always have this during the pandemic, when for example one of the teachers needed to substitute in another class. One headteacher explains what this has meant for the pupils:

So, some pupils didn't really get the support that they needed. When the resources are not there, of course it makes a difference. That is always the case, but these limitations were greater during the pandemic.

The teaching profession has been hit hard during the pandemic and there are limitations when it comes to teachers' capacity to work with holiday schools and extra teaching. At the same time, a number of the interviewed teachers state that they have used their planning time to support pupils or helped the pupils after class time by being available digitally.

### **Challenge to reach the pupils who need support**

Yet another clear limitation concerns the pupils' motivation to get out as much as possible from their instruction. As previously described, the respondents feel that the pupils' motivation and drive have decreased during the pandemic. This also affects the possibility of reaching out with efforts to these pupils – the pupils who have the greatest need of efforts don't always take advantage of them. This is particularly true of efforts after school hours, such as homework help and holiday school.

At several of the upper-secondary schools, the respondents have described that it has been difficult to apply the exemption in the recommendation on remote teaching, which provided that pupils who could be considered vulnerable could receive face-to-face instruction when other pupils had remote teaching. More pupils were assessed to be prioritised for face-to-face instruction than what could be brought onto school premises due to the risk of infection. Some schools thus have such a high proportion of particularly vulnerable pupils that the exemption would have included the majority of the pupils.

Some of the schools included in the study hired extra premises during the pandemic in order to be able to bring pupils in for face-to-face instruction. Other schools did not have this possibility. The results of this have been that not all pupils who would have needed face-to-face instruction during the pandemic have received it.

### **Efforts focused on certain pupils**

As mentioned in the above section, the extra support efforts during the pandemic were primarily directed at the pupils at risk of failing. This means that efforts were uncommon for pupils who lost knowledge corresponding to one or a couple of grades on the scale above the line between E and F. This applies both to the efforts implemented earlier during the pandemic and the efforts being implemented now.

Yet another aggravating circumstance is that pupil absenteeism remains high in certain groups of pupils. The efforts described in this study concern the pupils who are present but do not seem to capture pupils who continue to have high absenteeism. There are also examples here of how individual schools or teachers have developed their own solutions. At a couple of the schools in the study, the teachers have let pupils who are absent access the teaching digitally, although the possibility to conduct teaching remotely under the Ordinance on education in the school and other pedagogical activities during the spread of certain infections was removed on 1 April 2022. Even if this is done out of the greatest goodwill on the

part of the teacher, it entails a reduction in equality because all pupils do not receive access to the same adaptation.

**It is assessed that the loss of knowledge will persist for a couple of years.**

Despite the efforts implemented and which are still being conducted, most of the schools assess that the loss of knowledge will continue for a couple more years. Whether the schools will be able to compensate for the pupils' loss of knowledge before the leave their respective school forms is less clear, however, based on what emerged in this interview study. The headteacher for a compulsory school says the following about the pupils who are now in school year 9 and are assessed to have a loss of knowledge:

Our hope is that we will be able to compensate as much as possible during this year so that they can move on [to upper-secondary school]. But I can imagine that they will need to continue even in the upper-secondary schools, to consider that there is still a loss of knowledge, that they need to keep working on it.

Several respondents also point out that time is an important factor when it comes to giving the pupils the support they need. One teacher in the upper-secondary school says the following:

Schools and teachers just can't patch and fix an unlimited number of things either, we have the same teaching hours and the same courses that have to be gone through with these, like, all the handicaps we have.

At the same time, the respondents feel that it is difficult to assess how the loss of knowledge might look in the future, partly because this depends on how successful their efforts to compensate are, and partly because they do not have the entire picture of the pupils' knowledge development. This is how the headteacher for one upper-secondary school reasons:

So I guess I'd say that I'm keeping my ear to the rail here to be ready to catch and to fine-tune, because, well, the danger is over now, but they still have, so to speak, baggage from before and as a headteacher and educational leader, I have to be alert to see 'what will be the outcome of this?' You'll maybe manage compulsory school, you'll maybe manage the continuation course, but how will it go with the advanced course in Year 3 then?

## **Conclusions**

In this interview study, the National Agency for Education has turned to a selection of schools that previously stated that the pupils were affected by a loss of knowledge during the pandemic, primarily in mathematics. The conclusions are thus based solely on these schools. Even if the conditions described in the interviews are likely the same for many schools in addition to those included in the study, the results would probably be affected if the study also included schools that did not suffer a loss of knowledge earlier during the pandemic.

### **The consequences of the pandemic are still noticeable**

At the twelve schools included in the study, teachers, principals and pupil health services staff assess that there is a residual loss of knowledge, though to varying

degrees. At some of the schools, it is individual pupils who are behind in their knowledge development, while at others it is large groups of pupils, such as pupils with weak language skills, or entire school-year cohorts. The loss is assessed to be greatest in the subject of mathematics as a result of the teaching in mathematics being particularly affected during the pandemic. According to the respondents, the loss of knowledge is expressed in the pupils being behind in terms of both knowledge and experience, and this is especially clear in the transition between the school forms.

### **The extent of the pandemic's consequences is affected by the different conditions of the schools**

One overall conclusion is that the schools have very different needs and conditions. In the interviews, the respondents return to the importance of the school's pupil base. Some schools have mainly independent and driven pupils with backup from the home by highly educated parents. Other schools mainly have pupils with less-favourable conditions, less support from home and weak language skills. The pandemic has meant that the schools' work with the compensatory mission has been brought to the forefront in several ways.

The differences between pupils and schools have become manifested in different degrees of consequences in terms of loss of knowledge. One conclusion is that there have been greater differences between the pupils in their knowledge than normal. The most vulnerable pupils are those described as most affected, and the normally well-performing pupils have been affected the least or not at all. At the schools in which the consequences have been most noticeable, continued challenges are also described in the work with efforts to help the pupils catch up on the knowledge and abilities they have missed out on.

Although this study is of limited scope and focuses on schools that have stated they have a loss of knowledge, this confirms what the National Agency for Education has been able to discern in previous follow-ups during the pandemic. This is that the differences between schools and pupils have been further amplified due to the conditions during the pandemic, at least in a shorter perspective.

### **It is urgent to focus on pupils' well-being**

At all of the interviewed schools, the pupils' psychosocial health, motivation and maturity level have generally deteriorated in comparison with a few years previously. It is not possible to say how much of this is due to the situation during the pandemic, but it is clear that the pandemic has had an adverse effect on pupils' well-being and motivation.

Given the above, that study-motivated and independent pupils have coped with the pandemic without any major loss of knowledge, a general deterioration in the pupils' motivation is something that risks impacting school results in the future and further increasing the differences between pupils. This is particularly true



because it is difficult for the schools to handle issues related to motivation and drive among pupils at the group level.

### **Continued need for measures, especially in compulsory schools**

The picture that the National Agency for Education got of the schools' work to compensate for the pupils' loss of knowledge is that the schools are doing what they can within the space that they have. However, the limiting factors at the schools included in the study suggest that more pupils than normal will have difficulties meeting the grading criteria. This is mainly because it is the most vulnerable pupils at the schools with the most limiting conditions that have also lost the most. But also because there isn't space to help other pupils in addition to the regular teaching. From the interviews, it emerges that the schools' efforts to counteract the loss of knowledge have been and still are focused on support to pupils at risk of receiving a grade of F. At the same time, it is described that the pandemic has also affected many of the pupils who are over this level in terms of knowledge, i.e., pupils who lost knowledge corresponding to one or a couple of grades or whose loss of knowledge is not visible in the grades.

## 5. Grade development during the pandemic

It is difficult to fully determine from the statistics how developments in grades have been affected by the pandemic and other factors such as cancelled national tests.<sup>273</sup> Grades went up during the initial years of the pandemic, in 2020 and 2021, and thereby followed a trend from the years before the pandemic. But for the pupils who graduated school year 9 in spring 2022, grades dropped to the same level as before the pandemic. Whether this drop is due to the pandemic is impossible to determine, but it is this graduating cohort that was most exposed to the pandemic. This decrease applies for all investigated pupil groups. The final school grades from the upper-secondary schools in spring 2022 have not been available for similar analyses, so conclusions surrounding grade developments in the upper-secondary schools are mainly based on the final school grades in spring 2020 and 2021.

The cancelled national tests during the pandemic limited the basis for assessment for grading, but do not seem to have affected the general grade developments to any greater degree. On the whole, grade developments for different groups of pupils have developed similarly during the years 2020 to 2022. In school year 9, however, the girls' grade advantage has decreased. In 2021, grades for girls increased less than for boys and in 2022, grades dropped more for girls than for boys. There is also a tendency for the grades for pupils in the vocational programmes in the upper-secondary schools, particularly pupils with the lowest grades, to have had a poorer grade development during 2020 and 2021.

The pandemic's effects on grade developments are being investigated here, which is not the same as effects on knowledge development. This latter requires measurements designed to capture the development of knowledge over time, which are not grades. To some extent, the effects of the pandemic on knowledge development may be possible to distinguish in the PIRLS and PISA studies that will be presented in 2023.

### Drop in grades during the end of the pandemic

The merit ratings for school year 9 and in the upper-secondary schools continued to increase during the first years of the pandemic, 2020 and 2021. The higher grades in school year 9 were assessed to be largely due to demographic changes, however. For pupils born in Sweden, grades remained at an unchanged level during 2020 and 2021, while grades for foreign-born pupils were higher as a result of the pupils having attended, on average, more years in Swedish schools.

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<sup>273</sup> Unless otherwise specified, the conclusions in this chapter are based on Appendix 2, which also contains references.

In the upper-secondary schools, grades continued to rise in 2020 and 2021 at the same rate as previous years, including for pupils born in Sweden. Pupil completion in the upper-secondary schools also increased for pupil cohorts who completed upper-secondary school in 2021, and interruptions in studies decreased. However, there was some difference in terms of grade developments in the upper-secondary schools. Grade development levelled off between 2020 and 2021 for pupils in the vocational programmes, particularly for pupils with the lowest grades and for pupils in independent schools.

In 2022, merit ratings dropped in school year 9. Grades dropped in all subjects except for English, where they rose, and for crafts, where they were at the same level as in 2021. The decline occurred in all investigated pupil groups, for boys and girls, for pupils with different migration backgrounds and with different performance levels. This is the first time there has been a drop in grades in all pupil groups since criterion-referenced grades were introduced. For pupils born in Sweden, the merit ratings dropped to a slightly lower level than they were before the pandemic.

Grades in the upper-secondary schools in spring 2022 could not be analysed in similar ways as previous years. It has therefore not been possible to investigate whether or not grade developments in the upper-secondary schools have been similar to those in school year 9. Appendix 2 presents developments in pupil completion for each upper-secondary programme within three years, but without taking into account demographic changes or other possible explanations. When it comes to pupil completion, it can be stated that the number of pupils who began national programmes and graduated within three years is largely unchanged in 2022 from 2021. Developments differ for the two types of programmes, however. In the higher education preparatory programmes, the proportion of pupils who graduated within three years decreased in 2022. This is the first time since the first cohort of pupils left the reformed upper-secondary schools (Gy 11) that the proportion of pupils graduating with diplomas within three years decreased in the higher education preparatory programmes. The proportion of pupils graduating within three years decreased in four of six of the higher education preparatory programmes in 2022. One contributing reason for the decrease in the proportion of pupils graduating from a higher education preparatory programme in 2022 is that a greater proportion of pupils received failing grades in certain courses, primarily Swedish 3 but also Mathematics 1 and the final upper-secondary degree project, which must receive a passing grade for the pupil to graduate. The proportion of pupils who graduated within three years from vocational programmes continued to increase in 2022. This applied to eight of twelve vocational programmes in 2022. Other perspectives surrounding grade developments apart from pupil completion may become visible in the future through further analyses.

## Analysis of the grade results shows some impact from the pandemic and cancelled national tests

The National Agency for Education has performed a number of analyses to follow up on the pandemic's impact on pupils' grades and test results. As the National Agency for Education has previously pointed out, there may be various factors that affect the pupils' grades and knowledge development. Grades are not fully reliable for measuring pupils' knowledge development over time. For example, the merit ratings in school year 9 have continued to rise during a period in which results have declined in the international measurements PISA (15-year-olds) and TIMSS (pupils in school year 8). However, this does not mean that there is not a certain relationship between grades and knowledge. There is a high level of agreement between pupils' results in international knowledge measurements and their grades. High scores in PISA and TIMSS have a strong correlation with high grades at the individual level.<sup>274</sup> Yet several studies indicate that grades are not equitable and that the conditions for equitable grading deteriorated even further during the pandemic when the national tests were cancelled.<sup>275</sup> In all, it is impossible to know if a changed development in grades during the pandemic, for all or for some pupil groups, also follows changed knowledge development. It is also difficult to know if changes are due to the pandemic, measures taken as a result of the pandemic, or other factors.

### Cancelled national tests increased relative grading

The cancelled national tests during the pandemic seems to have made grading more uncertain.<sup>276</sup> The National Agency for Education's assessment is that this has not had any major impact on general grade developments. Cancelled national tests are not a primary explanation for the continued rise in grades in 2020 and 2021, and it is also not a primary explanation for the drop in grades in the compulsory schools in 2022. In 2020 and 2021, grades rose in both tested and non-tested subjects in the compulsory and upper-secondary schools. In 2022, grades in both tested and non-tested subjects dropped in the compulsory schools, although the overall decline was about twice as large in the subjects in which national tests were cancelled. In the upper-secondary schools, grades went up especially in the courses Mathematics 2B and 3 and Swedish 3 when the national tests were cancelled. As mentioned above, a contributing factor to the decrease in the proportion of pupils graduating from higher education preparatory

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<sup>274</sup> Swedish National Agency for Education (2017). *TIMSS, TIMSS advanced och betygen* [TIMSS, TIMSS Advanced and grades], and Swedish National Agency for Education (2022). *PISA 2018 och betygen. Analys av sambanden mellan svenska betyg och resultat i PISA 2018* [PISA 2018 and grades. Analysis of the link between Swedish grades and PISA 2018 scores].

<sup>275</sup> Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools], Swedish National Agency for Education (2020). *Analys av likvärdig betygssättning i gymnasieskolan. Jämförelser mellan kursbetyg och kursprov* [Analyses of equitable grading in the upper-secondary schools. Comparisons between course grades and course tests], and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4* [The impact of the COVID-19 pandemic on the education system, Interim Report 4].

<sup>276</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet*. [The impact of the COVID-19 pandemic on the education system. Interim Report 4] and Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på skolväsendet*. [The impact of the COVID-19 pandemic on the education system. Interim Report 5.]

programmes in 2022 is that a larger proportion of pupils received non-passing grades, primarily in the course Swedish 3. National tests in Swedish 3 were taken by the pupils in the 2022 graduating class, but were cancelled due to the COVID-19 pandemic for the pupils completing upper-secondary school in 2020 and 2021. Developments in the upper-secondary schools in the spring of 2022, however, remain to be analysed in a similar way as the grades for previous years.

The cancelled national tests are still assessed to have had some impact both on grade developments for different pupil groups and for the proportion of pupils graduating, which increased dramatically for national programmes in 2020 and 2021 in comparison with previous years. In previous grade analyses, the National Agency for Education has shown that there are elements of relative grading in the Swedish school system, that is, that grades are set based on the general performance level at the school. Previous reports have also shown that independent schools are on average somewhat more generous in their grading.<sup>277</sup> Analyses of grade statistics show that the clearest effects during the pandemic are assessed to be that relative grading increased further during the pandemic in the subjects that normally had national tests; see Appendix 2. Pupils who attended schools with high levels of performance got even more restrictive grading in tested subjects when the tests were cancelled. One explanation has to do with the national tests having a certain normative effect on grading. Without national tests, this normative effect disappears and the teachers base grading to an even higher extent on their pupil base when they interpret the knowledge requirements. Another effect, albeit relatively limited, was that pupils in independent schools got even more generous grading in tested subjects than normal. Looking at all subjects in school year 9, pupils in independent schools do not seem to have received more generous grading in 2020 and 2021 in comparison with municipal schools. When the national tests were back in school year 9 during the 2022 spring semester, both the relative grading and the more generous grading for independent schools in the tested subjects returned to about the same levels as before the pandemic.

### **Remote teaching to some extent affected grade developments in the upper-secondary schools**

As discussed in other sections of this report, the pandemic also affected teaching in other ways than just remote teaching. The survey and interview responses in particular show that the increased absences for pupils and teachers have had a negative impact. However, the National Agency for Education has been able to study the impact of remote teaching in particular through the survey conducted by Statistics Sweden in autumn 2021. The analysis investigates if there is a relationship between the number of weeks of remote teaching at a school and the school's grade developments in 2021. For school year 9, no significant

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<sup>277</sup> Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools] and Swedish National Agency for Education (2020). *Analys av likvärdig betygssättning i gymnasieskolan. Jämförelser mellan kursbetyg och kursprov* [Analyses of equitable grading in the upper-secondary schools. Comparisons between course grades and course tests].

relationship was found between the number of weeks of remote teaching and the grade developments at the schools. The reason for the lack of a link may be that there were not many weeks of remote teaching at most lower-secondary schools, so the impact of the remote teaching can hardly have been great.

However, for the upper-secondary schools, where remote teaching was more extensive, there is a significant correlation, even if the effects are very small – the more remote teaching, the poorer the grade developments in 2020 and 2021. This does not apply for pupils in the vocational programmes at independent schools, however, where the correlation was reversed. It cannot be ruled out that this could be due to more generous grading at independent schools with vocational programmes during the pandemic. Otherwise, the teaching quality would on average be better in independent school vocational programmes with remote teaching than with face-to-face instruction.

### **Greatest impact during the pandemic on girls' grade developments in the compulsory schools**

The National Agency for Education has also investigated whether the grade developments for different pupil groups were affected by the pandemic: boys and girls, pupils with different levels of performance, pupils with different migration backgrounds, pupils whose parents have different levels of education, and pupils who go to schools with different socio-economic compositions. In general, grades in different pupil groups do not seem to have developed in any significantly different way, either in school year 9 up to and including spring 2022 or in the upper-secondary schools up to and including spring 2021.<sup>278</sup>

But there is one exception. In school year 9, girls' grades dropped somewhat in 2021 while boys' grades increased somewhat. In 2022, girls' grades dropped more than boys' grades. This means that the gender differences in grades in favour of girls decreased both in 2021 and 2022 for school year 9. For the upper-secondary schools, the results for gender seem to be reversed, but this is more unclear. It has not yet been possible to analyse final school grades in 2022 for the upper-secondary schools in the same way as for the previous years.

### **There is some correlation between the principals' estimation of loss of knowledge and poorer grade developments in the compulsory schools.**

The National Agency for Education has also investigated if the survey responses from principals and teachers concerning a loss of knowledge in autumn 2021 are associated with the grade developments at the schools. There are unfortunately great uncertainties in the estimates, particularly for the upper-secondary schools. However, there is an expected significant correlation in school year 9 – at schools in which principals feared to a greater degree that there had been a loss of

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<sup>278</sup> The analyses for school year 9 apply up until 2022, while the analyses for the upper-secondary schools apply up until 2021.

knowledge, the grade developments are also on average somewhat poorer. For the upper-secondary schools, the correlation moves in the same expected direction, but is not significant.

## Important to continue to monitor the pandemic's impact on grades and knowledge development

In all, it is difficult based on available statistics to say for certain how the pandemic has affected grade developments. Overall, the grades are now back to the same level as before the pandemic in the compulsory schools. Yet spring 2022 is the first time there has been a drop in grades in the compulsory schools in all pupil groups since criterion-referenced grades were introduced. For pupils born in Sweden, the merit ratings dropped to a slightly lower level than they were before the pandemic. It cannot be known for certain whether this has a connection with the pandemic. The same applies for the slight decline in pupil completion for pupils in the higher education preparatory programmes in spring 2022, which are the pupils who have had the most remote teaching. It can be stated, however, that the pupil cohorts that graduated school year 9 and upper-secondary school in spring 2022 are the graduating cohorts that were impacted by the pandemic for the longest period of their schooling. The pandemic affected the pupils in all academic years: 2019/20, 2020/21 and 2021/22. For the upper-secondary schools, course grades are set successively each academic year and the cohort that graduated in 2022 received course grades in all three academic years. It cannot be ruled out that it is only with this long-term exposure to the pandemic that an impact appears on grade developments. It is also not possible to completely rule out that other factors are behind the decline, such as more restrictive grading. In vocational programmes, it also cannot be ruled out that there is a risk that the number of pupils graduating will slow down or decrease in the future. This is because degree-critical early courses in mathematics and English in the vocational programmes may have been affected and that national tests are again being carried out fully in Year 1, which could lead to a decrease in the proportion of pupils with degrees in the future, in comparison with pupils who completed upper-secondary school in 2020–2022.

This can be investigated to some extent going forward by monitoring the pupils' continued schooling after school year 9 and after they have left upper-secondary school. It will also be important to monitor the development from school year 6 to school year 9 and look more closely at the developments in the upper-secondary schools in spring 2022. There is a problem, however, with using grades to investigate how the pandemic has affected the pupils' knowledge development, which is what is most urgent to ascertain. This requires knowledge measurements that are designed to measure the pupils' knowledge development. PIRLS 2021 measures the pupils' reading comprehension in school year 4 and PISA 2022 measures 15-year-olds' knowledge in reading comprehension, mathematics and

the natural sciences. Both of these measurements will be presented in 2023<sup>279</sup>. For the upper-secondary schools, however, there is no independent knowledge measurement that can capture the impact of the pandemic.<sup>280</sup>

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<sup>279</sup> PIRLS 2021 has been delayed and the results will probably be published at some time in 2023. PISA 2022 was published in December 2023.

<sup>280</sup> TIMSS Advanced measures advanced knowledge in mathematics and the physical sciences for upper-secondary schools but there is currently no planned survey, and this survey will therefore not capture the effects of the pandemic. The PIAAC survey, which examines the skills of adults, may possibly say something about the pandemic's effects, but this is unclear based on how it is conducted in stages in 2021 and 2023 and it has a limited number of participants in upper-secondary school ages. <https://www.scb.se/hitta-statistik/statistik-efter-amne/utbildning-och-forskning/befolkningens-utbildning/den-internationella-undersokningen-av-vuxnas-fardigheter/>



## 6. Sweden in international comparison

This section provides an international outlook to put Sweden's handling of the COVID-19 pandemic in a European context. Countries have chosen different strategies in the schools to deal with the pandemic. There have been differences between European countries in how they organised school instruction during the pandemic, what conditions they had for readjustment, and what consequences the pandemic has had on the knowledge development of children and pupils.

### Unlike Sweden, most European countries closed compulsory schools and preschools during the beginning of the pandemic

Most European countries closed preschools and compulsory schools at least once during the pandemic. In Europe, it was especially common to close preschools and compulsory schools at the start of the pandemic. During the 2020/2021 academic year, several countries transitioned to hybrid instruction or opened their schools completely. The countries primarily opened up schools for younger children and pupils. It was a general trend in Europe for countries to close down preschools and primary school years 1–3 to a lower extent than the higher years.<sup>281</sup>

From January 2020 to May 2021, Sweden was basically alone in not applying a general closure of compulsory schools, and during the same period, Sweden was one of few European countries that did not close preschools. Sweden is the country in Europe which had schools the most open for pupils in school years 1–6 during the pandemic. It is more difficult to compare the number of closed days for pupils in school years 7–9. This is because during the spring of 2021 it was possible for organisers to transition to remote teaching in the lower-secondary schools even if the Government had not decided on a general closure.<sup>282</sup>

The number of days that the preschools and compulsory schools were closed up until May 2021, i.e., during the first year or so of the pandemic, varied greatly within Europe. Several European countries in which the preschools and compulsory schools together were closed for a comparatively long period were Poland, Germany, Slovenia, Lithuania and Portugal. In some other countries, including the Nordics, preschools and compulsory schools were closed to a small extent.<sup>283</sup> The degree of school closures varied even between the Nordic countries, however, but local exceptions were possible in all Nordic countries, which makes

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<sup>281</sup> European Commission/EACEA/Eurydice (2022). *Teaching and learning in schools in Europe during the COVID-19 pandemic* and OECD (2021). *The State of Global Education: 18 Months into the Pandemic*.

<sup>282</sup> Ibid.

<sup>283</sup> Ibid.

comparison more difficult. Norway and Denmark are the Nordic countries that seem to have closed preschools and compulsory schools to the greatest extent.<sup>284</sup>

It can be noted that some other countries made changes in teaching hours, for example by re-prioritising between subjects, but this was not something that was done in Sweden.<sup>285</sup>

## School closures in Swedish upper-secondary schools have been more in line with other European countries

In terms of school closures in the upper-secondary schools, Sweden's handling has been more similar to that of the rest of Europe. Most countries kept the upper-secondary schools closed longer than the primary and lower-secondary schools. Even for upper-secondary schools, school closures were most common at the start of the pandemic. An increasing number of countries subsequently transitioned to different forms of hybrid teaching.<sup>286</sup>

The number of days in which the upper-secondary schools were closed up until May 2021 varied greatly within Europe. The countries that closed the upper-secondary schools to a great extent are largely the same countries that closed the primary and lower-secondary schools to a great extent. Compared with the rest of Europe, Sweden closed upper-secondary schools to a medium extent during the first year of the pandemic.<sup>287</sup> All Nordic countries closed the upper-secondary schools completely for at least two months during this period. It appears that Sweden, Finland and Denmark closed upper-secondary schools to a somewhat greater extent than Norway and Iceland, but as with the primary and lower-secondary schools, local exceptions make it difficult to compare the degree of school closures.<sup>288</sup>

School closures have therefore meant different things in different countries. In some parts of the world, school closures caused a significant interruption in the teaching. In a few European countries, school closures led to a short interruption in teaching, but overall, European primary, lower-secondary and upper-secondary pupils have received some form of remote teaching during the periods in which the schools were closed.<sup>289</sup>

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<sup>284</sup> Norway and Denmark closed their preschools for several weeks and compulsory schools for at least two months. For the older pupils, it was a longer time. Finland closed schools for school years 4–9 for at least two months and for a period they recommended remote teaching even for primary school years 1–3. In Iceland, the compulsory schools were basically open but with limited activities and local exceptions during certain periods. Source: IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries].

<sup>285</sup> Swedish National Agency for Education (2022). *Skolan i världen under covid-19-pandemin. En internationell litteraturstudie* [Schools in the world during the COVID-19 pandemic. An international literature study].

<sup>286</sup> OECD (2021). *The State of Global Education: 18 Months into the Pandemic* and Swedish National Agency for Education (2022). *Skolan i världen under covid-19-pandemin. En internationell litteraturstudie* [Schools in the world during the COVID-19 pandemic. An international literature study].

<sup>287</sup> OECD (2021). *The State of Global Education: 18 Months into the Pandemic*

<sup>288</sup> IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries].

<sup>289</sup> European Commission/EACEA/Eurydice (2022). *Teaching and learning in schools in Europe during the COVID-19 pandemic* and OECD (2021). *The State of Global Education: 18 Months into the Pandemic*.

## Sweden and the rest of the Nordic countries had comparatively good conditions to manage the transition to remote teaching

As a result of the pandemic, the school system had to quickly switch to digital teaching. Compared with countries in other parts of the world, European countries generally had better conditions to manage the transition to digital remote teaching. However, there are differences within Europe and several European countries had difficulties. These concerned both a lack of access to technical equipment and a lack of skills among teachers.<sup>290</sup> Countries that had major challenges include France and Germany.<sup>291</sup> The Nordic school systems, including Sweden, were comparatively well prepared in terms of access to technical equipment. In terms of digital proficiency among teachers, the Nordic countries are not at the forefront, however. In international comparisons of teacher proficiency based on teachers' and principals' own estimates, Sweden and other Nordic countries are close to or even under an OECD average.<sup>292</sup> According to OECD, the results from TALIS 2018<sup>293</sup> show that teachers were generally poorly equipped to handle the transition to digital remote teaching.<sup>294</sup>

Many European countries have implemented efforts during the pandemic to improve their conditions for conducting digital remote teaching. This has included financial contributions to buy equipment, national skills development efforts for teachers and national guidelines and support materials for digital remote teaching.<sup>295</sup> Some European countries chose a more centralised model in which the state took great responsibility for how the transition to digital teaching would take place in the country's schools. Estonia, for example, developed a common digital platform that the country's schools could use.<sup>296</sup> Sweden, on the other hand, chose a more decentralised model in which it was largely up to each organiser to solve the transition.

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<sup>290</sup> European Commission/EACEA/Eurydice (2022). *Teaching and learning in schools in Europe during the COVID-19 pandemic*, OECD (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020* and Swedish National Agency for Education (2022). *Skolan i världen under covid-19-pandemin. En internationell litteraturstudie* [Schools in the world during the COVID-19 pandemic. An international literature study].

<sup>291</sup> A-focus (2020). *Internationell utblick – distansundervisning under Covid-19* [International outlook – Remote teaching during COVID-19].

<sup>292</sup> IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries] and OECD (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020*.

<sup>293</sup> TALIS stands for The Teaching and Learning International Survey and is an international study directed at teachers and principals in the preschools and school years 7–9 of the compulsory schools.

<sup>294</sup> OECD (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020* and OECD (2021). *The State of Global Education: 18 Months into the Pandemic*.

<sup>295</sup> European Commission (2021). *Early childhood education and care and the COVID-19 crisis. Understanding and managing the impact of the crisis on the sector*, OECD (2021). *The State of Global Education: 18 Months into the Pandemic* and Swedish National Agency for Education (2022). *Skolan i världen under covid-19 pandemin. En internationell litteraturstudie* [The school in the world during the COVID-19 pandemic. An international literature study].

<sup>296</sup> Swedish National Agency for Education (2022). *Skolan i världen under covid-19 pandemin. En internationell litteraturstudie* [The school in the world during the COVID-19 pandemic. An international literature study].

## The pandemic has caused a general loss of knowledge around the world and some pupil groups have, just as in Sweden, been hit especially hard

Country-specific studies and meta-analyses of research from several countries have identified a significant loss of knowledge around the world during the pandemic. School closures and remote teaching have adversely affected pupils' knowledge development. This also applies in countries with good conditions to manage the transition to remote teaching. The extent of the loss of knowledge caused by the pandemic varies from country to country. Factors that affect this include how long the school closures and remote teaching lasted, how countries and schools have designed the remote teaching, and how good the conditions were for such teaching.<sup>297</sup> How pupil absenteeism due to the pandemic looked in each country is also an important factor for assessing the pupils' access to teaching during the pandemic.

The loss of knowledge has also varied between different groups of pupils. One recurring conclusion in the research on the pandemic's effect on pupils' knowledge development is that some groups of pupils have been hit particularly hard. It is the pupils who had the toughest time even before the pandemic who have been most affected. This concerns pupils with less favourable socio-economic conditions, pupils who are new arrivals to Sweden or asylum-seekers, and pupils with various disabilities.<sup>298</sup> That these pupils were hit particularly hard is due, among other things, to an unequal access to digital technology, which in turn has made it difficult to reach out with teaching during school closures. Another explanation is differences in the home environment and how much support the pupils have been able to receive from home.<sup>299</sup> Unequal access to digital technology has been less of a problem in the Nordics than in several other European countries. As the National Agency for Education's studies show, however, pupils with less favourable socio-economic conditions were also hit particularly hard in Sweden.

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<sup>297</sup> Bach-Mortensen, A. et al. (2022). *A systematic review and meta-analysis of the impact of the COVID-19 pandemic on learning*, Carter-Rau et al. (2022). *An Analysis of COVID-19 Student Learning Loss*, European Commission/EACEA/Eurydice (2022). *Teaching and learning in schools in Europe during the COVID-19 pandemic*, European Commission (2021). *Early childhood education and care and the COVID-19 crisis. Understanding and managing the impact of the crisis on the sector*, IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries], Swedish National Agency for Education (2022). *Skolan i världen under covid-19 pandemin. En internationell litteraturstudie* [The school in the world during the COVID-19 pandemic. An international literature study] and OECD (2021). *Using Digital Technologies for Early Education during COVID-19*.

<sup>298</sup> Bach-Mortensen et al. (2022). *A systematic review and meta-analysis of the impact of the COVID-19 pandemic on learning*, Carter-Rau et al. (2022) *An Analysis of COVID-19 Student Learning Loss*, European Commission (2021). *Early childhood education and care and the COVID-19 crisis. Understanding and managing the impact of the crisis on the sector*, IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries], Koehler et al. (2022). *The impact of COVID-19 on the education of disadvantaged children and the socio-economic consequences thereof*, OECD (2021). *Using Digital Technologies for Early Education during COVID-19*, and Swedish National Agency for Education (2022). *Skolan i världen under covid-19-pandemin. En internationell litteraturstudie* [Schools in the world during the COVID-19 pandemic. An international literature study].

<sup>299</sup> IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries] and OECD (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020*.

Another group at risk of being hit particularly hard by remote teaching is younger pupils. This is because it is difficult to conduct effective remote teaching for these pupils.<sup>300</sup> Reports from the European Commission and OECD also show that the preschools were not included in national support measures during school closures in many European countries.<sup>301</sup> Compared with several other European countries, Sweden has a great advantage as preschools and schools for younger pupils were never closed.

Studies indicate that there is a possibility of repairing pupils' loss of knowledge through compensatory measures.<sup>302</sup> The long-term consequences of the pandemic on pupils' knowledge development will depend on the potential measures that countries and individual schools take to compensate for the loss of knowledge due to missed teaching and remote teaching. A follow-up from the European Commission shows that half of the European countries have taken national measures to handle the loss of knowledge during the pandemic. This has included increasing opportunities for pupils to get supplementary teaching in smaller groups after the end of the school day or during school holidays. According to the follow-up, it is common that countries choose to target these measures especially toward the groups of pupils who were hit hardest by the pandemic.<sup>303</sup> Similar findings emerge in a study by OECD.<sup>304</sup> However, these studies only show the situation until the summer of 2021. To understand the long-term consequences of the pandemic, how these differ between countries, and where Sweden stands in this comparison, it is important to continue to monitor the pupils' knowledge development and what compensatory measures countries take.

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<sup>300</sup> IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries], OECD (2021). *Using Digital Technologies for Early Education during COVID-19*, and Svaleryd & Vlachos (2022). *COVID-19 and School Closures*.

<sup>301</sup> European Commission (2021). *Early childhood education and care and the COVID-19 crisis. Understanding and managing the impact of the crisis on the sector*, and OECD (2021). *Using Digital Technologies for Early Education during COVID-19*.

<sup>302</sup> IFAU (2022). *Covid-19 och distansundervisning i Norden* [COVID-19 and remote teaching in the Nordic countries] and Swedish National Agency for Education (2022). *Skolan i världen under covid-19-pandemin. En internationell litteraturstudie* [Schools in the world during the COVID-19 pandemic. An international literature study].

<sup>303</sup> European Commission/EACEA/Eurydice (2022). *Teaching and learning in schools in Europe during the COVID-19 pandemic*.

<sup>304</sup> OECD (2021). *The State of Global Education: 18 Months into the Pandemic*.

## 7. The supporting work of the school authorities

When COVID-19 began to spread in Sweden in February 2020, the National Agency for Education began, in collaboration with other public authorities, to develop support for the target groups. This chapter provides an overview of the supporting efforts that the National Agency for Education and National Agency for Special Needs Education and Schools (SPSM) have conducted during the pandemic from February 2020 to December 2022 when this final report was written. Chapter 9 discusses the National Agency for Education's efforts in more depth.

On 30 April 2020, the National Agency for Education was tasked by the Government to support organisers, education providers, principals, teachers, preschool teachers and other staff in the education system during the COVID-19 pandemic.<sup>305</sup> The assignment was later integrated with the assignment to follow up and evaluate the consequences of the pandemic, and with the assignment regarding management of the pandemic's consequences, which is described in the introduction.

The assignment states that the National Agency for Education must carry out efforts to support organisers, education providers, principals, teachers, preschool teachers and other staff in the education system and other educational organisations due to the pandemic. The National Agency for Education must also carry out efforts to manage both short- and long-term consequences for education in the education system due to the COVID-19 pandemic, including the risk for poorer opportunities for children's and pupils' knowledge development. The National Agency for Education must develop support that makes it easier for the target groups in the education system to conduct their activities under the special circumstances brought by the pandemic.<sup>306</sup>

### The National Agency for Education's work during the pandemic

The pandemic has affected the education system during all phases of the pandemic. The support that the National Agency for Education has been able to offer has therefore changed continuously. The basis for the regulatory framework in the education system during the pandemic was the Ordinance on education in the school and other pedagogical activities during the spread of certain infections<sup>307</sup> and the recommendations issued by, above all, the Public Health

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<sup>305</sup> Assignment to implement supporting efforts due to COVID-19 (U2020/02765/S).

<sup>306</sup> Appropriation Directions for budget year 2021 concerning the Swedish National Agency for Education, items 14 and 21.

<sup>307</sup> Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

Agency. As previously stated in this final report, the ordinance was changed several times during the pandemic and the Public Health Agency's recommendations were changed continuously on many occasions, often on short notice, to cope with the developments of the pandemic. High demands were therefore placed on the National Agency for Education and the other school authorities to quickly reach out with information on the regulatory framework and to provide support for how school activities could be carried out at different levels.

### **Ongoing external consultation**

The National Agency for Education has continuously consulted and met with other public authorities, organisers, trade unions and pupil organisations. These consultations took place regularly with the aim of identifying and discussing different issues and problems identified during the pandemic at the preschools, schools and adult education at upper-secondary level (Komvux). Another aim was to identify and discuss what types of support the school authorities could offer to support the situations that arose, and to discuss the National Agency for Education's ongoing reports on the situation in the education system.

The consultations revealed several goal conflicts during the pressured situation brought on by the pandemic in preschools and schools. For example, the pupils' right to a good education and the working environment that pupils and staff worked in were discussed repeatedly, as were issues concerning how the organisations should interpret a changing regulatory framework. The National Agency for Education also used consultations to harmonise different authorities' regulations and their impact on the education system, and the Agency often acted as a link between other authorities in issues concerning preschools and schools.

The National Agency for Education established contact with a number of authorities to reconcile pandemic issues within the education system and coordinate communication efforts. The public authorities with which the National Agency for Education mainly had contact were the Public Health Agency, the Work Environment Authority, the National Board of Health and Welfare, the National Food Agency, the Police, the Transport Administration, the Swedish Civil Contingencies Agency (MSB), the County Councils, the Regions' infection control physicians, and a very close dialogue with the other school authorities. Other organisations that the National Agency for Education met with regularly were the Swedish Association of Local Authorities and Regions (SALAR), the Association of Independent Schools, the national association for non-profit independent schools (ISR), school leaders' and teachers' unions, the Kommunal trade union and the pupil organisations.

The Public Health Agency and the National Agency for Education were already collaborating closely during the initial wave of infection, with the National Agency for Education serving as sounding board for the Public Health Agency for questions concerning their recommendations. During large parts of the pandemic, the authorities had regular weekly debriefing meetings in which various situations

from the National Agency for Education's consultations were discussed. The authorities coordinated communication efforts and, where the Public Health Agency's information was relevant for the National Agency for Education's target groups, the authority's channels were often used. Questions concerning the Public Health Agency's recommendations and advice that were received by the National Agency for Education's information service or in consultations were discussed continuously to create a common communication for how the guidelines and recommendations should be understood and used in preschools, schools and Komvux adult education organisations. The National Agency for Education also invited representatives from the Public Health Agency to different consultations held by the National Agency for Education. This was done in order to enable immediate discussions on issues concerning vaccination, anxiety, distancing recommendations and graduation celebrations with the National Agency for Education's target groups.

In addition to the external consultations, the National Agency for Education had daily contact with the target groups via the Agency's information service. The questions that were received by the National Agency for Education were answered directly to the questioner, but were also used internally to highlight various problems that the target groups experienced out in the country's schools. The questions that were received by the information service were systematically followed up to be addressed in consultations with other authorities and as an indication of questions for which the National Agency for Education needed to publish support on the National Agency for Education's website.

### **The National Agency for Education's support to the target groups**

The requirements for authorities to conduct crisis communication are extensive regardless of the nature of the event. The National Agency for Education worked proactively with communication early on so that it could go out in time and respond to the target groups' information needs.

Support that the National Agency for Education has provided its target groups during the pandemic has mainly been offered via the Agency's website. The National Agency for Education has had the ambition to be the hub for information to organisations in the education system throughout the pandemic, and has therefore compiled and helped to interpret rules from different public authorities and supported the organisations with various supporting materials and learning examples. The National Agency for Education has also, through repeated studies on the pandemic's impact on the education system, contributed to increased knowledge and understanding of the situation during the different phases of the pandemic.

The National Agency for Education has also contributed to supporting activities on other websites than the Agency's own. In particular, the Agency contributed with a large part of the content on the website *Skola hemma* [School at Home].



School at Home was a project initiated by RISE<sup>308</sup> and chiefly funded by the National Agency for Education. A number of school authorities worked together to prepare support for the schools with a focus on teaching during the pandemic. The material included research as well as compilations and analyses of experiences. School at Home was launched in a very short time in March 2020 and quickly spread widely throughout the country's schools. In connection with the National Agency for Education building up and restructuring its own website, the material that the National Agency for Education produced ended up mainly on its own websites, but cooperation also continued in the School at Home project.

The principle of proximity, which is one of the three central principles of crisis management, means that disturbances in society should be handled when they occur and by those who are most closely affected and responsible.<sup>309</sup> The National Agency for Education has therefore proceeded based on the idea that decisions are best made as close to those affected as possible. The purpose of the support that the Agency has offered has thus been to support local decision-makers based on the needs that organisers, school management, principals, teachers and pupils have had.

The National Agency for Education, on assignment by the Government, has been producing support for the target groups since April 2020 with the aim of providing the target groups with information about applicable rules and examples of how the work at preschools, schools and Komvux adult education organisations can be carried out during the pandemic in various areas. There have been over 20 web pages with support that has been developed according to identified needs that emerged through, e.g., the National Agency for Education's consultations with other authorities, school organisations and the target groups via the National Agency for Education's information service. This has, for example, concerned grades and assessment, work experience programme (PRAO), parent-teacher conferences, how schools could be organised during the pandemic in the preschools, compulsory and upper-secondary schools and in municipal adult education. This also concerned regulatory frameworks, support for conducting remote teaching, and support for preschools and schools that had face-to-face instruction. The support has particularly aimed to take into account the working environments of children, pupils and staff. This as both the school authorities and the Government received repeated feedback that the working environments were very strained for long periods of time and that there was a need for support in this area. In March 2021, the National Agency for Education published the collective web page *Koll på verksamheten under pandemin* [Tracking operations during the pandemic].<sup>310</sup> In June 2021, the page was renamed *Koll på pandemins påverkan* [Tracking the impact of the pandemic].<sup>311</sup> The content was revised before the

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<sup>308</sup> Ri.se (2022). *Om RISE* [About RISE].

<sup>309</sup> SOU 2022:10. See more about the principles of responsibility, proximity and equality in the committee report.

<sup>310</sup> The page was discontinued in September 2021 when several of the Public Health Agency's restrictions were lifted.

<sup>311</sup> The page has been replaced with updated contents and renamed *Koll på pandemins påverkan* [Tracking the impact of the pandemic].

2021 autumn semester when the schools would organise to a greater extent to conduct teaching on site as much as possible.

### **Examples of other communication efforts**

The National Agency for Education has also used other communication channels than the website to reach out to the target groups, such as skolahemma.se, social media, newsletters, and digital conferences.

During the pandemic, the Agency has highlighted important messages to the education system in its newsletter, which reaches about 50,000 subscribers. In the newsletter, which is distributed once a week, the National Agency for Education has communicated reports and support material produced by the National Agency for Education. The National Agency for Education has also raised important issues in the education system that can come from other authorities' websites in the newsletter. The National Agency for Education's newsletter and other communication channels to organisers in the education system were often used to reach out with various messages and signals from the Public Health Agency. The regular newsletter for subscribers has been supplemented as needed with newsletters to particular target groups, such as principals or school management. Similarly, various issues have been raised on social media to supplement the newsletter and to reach out more broadly to different target groups.

During the spring of 2021, many organisers requested experience exchange and learning examples of how other organisers had dealt with the consequences of the pandemic. At the end of May, the National Agency for Education therefore arranged a digital conference for organisers under the theme of what we have learned during the pandemic and how these experiences could be used in planning for the autumn. The Minister for Education, the Director General of the National Agency for Education and the Schools Inspectorate, a number of school leaders and representatives from the Swedish Association of Local Authorities and Regions (SALAR) and the national organisation for lower- and upper-secondary pupils, Elevernas riksförbund, participated. About 250 organisers attended the conference and the webcast was subsequently published on the National Agency for Education's website. In January 2022, the National Agency for Education and the Schools Inspectorate also arranged a digital seminar for organisers and principals. The seminar presented the findings of follow-ups in the authorities' respective Government assignments connected to the pandemic issues.

### **Support for charting and handling the pandemic's long-term consequences**

The purpose of the web pages has been to disseminate information on the National Agency for Education's recommendations during the pandemic for all school forms. Via the web pages, the users could also find further suitable support for charting knowledge, working with pupil health, systematic quality

management, etc. Examples of content that was published early on *Koll på pandemins påverkan* [Tracking the impact of the pandemic] include:

- support for how the schools could organise remote teaching for younger pupils,
- support for how the schools could use the new assessment aids that replaced the national tests in the spring of 2021,<sup>312</sup>
- clarifications regarding replacement teaching for cancelled work experience placements,
- support for organisers to chart the consequences of the pandemic,
- clarifications on what applied for preschools and schools in the regulatory framework in place during the pandemic.

In 2022, updates on the web pages primarily concerned shifting from recommending how organisers could handle short-term and emergency measures to dealing more with long-term measures for handling the consequences of the COVID-19 pandemic. The National Agency for Education has based this information on both what was presented during the continuous external consultations and on the findings of the evaluations and studies that the National Agency for Education and other authorities conducted during the course of the pandemic.

The National Agency for Education's starting point is that well-functioning systematic quality work based on participation and sound knowledge of what needs to be prioritised in each individual organisation are success factors in the work with school development. The Agency has therefore advocated systematic quality work to manage the consequences of the pandemic in both the short term and long term. In 2021 and 2022, the Agency reviewed and updated the support offered to organisers and principals in how the systematic quality work could be conducted and what the success factors were for this work. An even clearer emphasis on following up and analysing not only knowledge results but also pupils' well-being and the work with pupil health are examples of other things included in the updates.

### **External consultation on the consequences of the pandemic**

In 2022, the National Agency for Education held consultations with organiser representatives and dialogues with teachers. Below are some examples of what emerged from these. In the encounters with representatives for organisers it emerged, as previously described in this report, that there were concerns about pupils' well-being and increased prolonged school absenteeism among certain pupils. In the discussions, a need for more resources for pupil health services emerged and one proposal that was raised was targeted government grants. The

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<sup>312</sup> The national tests were cancelled in spring 2021. The decision was made against the background of the societal spread of COVID-19 and the increasing burden on the country's schools. The National Agency for Education instead developed assessment aids in all subjects for which the national tests were cancelled. See Chapter 3 for more information.

continued concern for the pupils' well-being has to some extent been amplified in that there is continued concern among pupils due to the war in Ukraine and how it affects Sweden. A long-term crisis has been replaced by new crises, without there really having been a chance to handle the consequences of the first. Apart from a concern over the pupils' well-being, a concern was also expressed concerning the pupils who have a loss of knowledge and how this would affect school activities.

The so-called practical–aesthetic subjects were particularly affected when teaching switched to remote teaching because the nature of these subjects requires physical presence. In the work to develop support for teachers in the practical–aesthetic subjects<sup>313</sup>, the National Agency for Education has conducted dialogues with teachers. The background was that the National Agency for Education had identified a need for support to organise for missed teaching elements.

As previously noted, children's and pupils' transitions between school forms were impacted during the pandemic. For example, information meetings, open houses and school visits were cancelled. School and teacher exchanges were also adversely affected because physical meetings were not possible. Against this background, the National Agency for Education has chosen to provide information about the importance of routines for transitions and collaboration via the web page *Koll på pandemins påverkan* [Tracking the impact of the pandemic] and link to the support material *Övergångar inom och mellan skolor och skolformer* [Transitions within and between schools and school forms].<sup>314</sup>

## **Support for schools' work with pupils' learning, health and well-being**

Research suggests that the knowledge and pupil health missions should be implemented in the school's everyday practices as a cohesive and integrated whole for them to be fully realised among children and pupils. The report *Bättre möjligheter för elever att nå kunskapskraven*<sup>315</sup> [Better opportunities for pupils to achieve the knowledge requirements] found that there are significant shortcomings at all organisational levels in the understanding of and consensus on the concepts associated with the pupil health mission. It further emerged that there is a great demand for practical advice and concrete examples of how the pupil health mission can be implemented at the school and teaching level. Against this background, and based on the pandemic's impact on motivation and well-being, the National Agency for Education has reviewed, developed and strengthened school development support within the pupil health mission.

The National Agency for Education's reports have shown that the pandemic had a negative impact on the school's ability to carry out its compensatory mission. This concerns the capacity to conduct preventative, health-promoting and remedying pupil health efforts, including designing extra adaptations and special

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<sup>313</sup> The subjects in question are art, crafts, physical education and health, home and consumer studies, and music.

<sup>314</sup> Skolverket.se (2022). *Övergångar inom och mellan skolor och skolformer* [Transitions within and between schools and school forms].

<sup>315</sup> SOU 2021:11 *Bättre möjligheter för elever att nå kunskapskraven* [Better opportunities for pupils to achieve the knowledge requirements].

support to pupils at risk of not meeting the grading criteria or the criteria for assessment of minimum knowledge that must be acquired. As a whole, this risks leading to reduced equality in the Swedish schools. Against this background, the National Agency for Education has looked at how the Agency can support organisations with the school's compensatory mission. The National Agency for Education has focused on how the target groups' school management, principals, the pupil health services, teachers and other school staff can receive support in their work to develop routines and structures for their work. When the structures are in place, this in turn provides support to pupils in everyday school life when different crises affect the school's staff and pupils in terms of pupils' learning, health and well-being. The National Agency for Education has referred to the following support material via the collective web page *Koll på pandemins påverkan* [Tracking the impact of the pandemic].<sup>316</sup>

- Organising early support and extra adaptations
- Promoting a calm and safe learning environment
- Health-promoting school development
- Pupils who have a hard time at home
- Promoting attendance and preventing absence
- Preventing pupils from dropping out of school

### **Support for handling missed teaching elements and consequences of remote teaching**

As discussed previously in this final report, the consequences of the pandemic have been characterised by local variations. Within some school units, the impact on teaching has been great and it has emerged that some teaching elements could not be carried out. For example, certain course components in practical aesthetic subjects, and physical education and health (swimming instruction in particular) have been difficult to carry out during the pandemic and periods of remote teaching.

The National Agency for Education's monitoring showed that pupils studying Swedish for immigrants in adult education at upper-secondary level (Komvux) were hit particularly hard by the relatively long period of remote teaching. Weaker study habits, digital unfamiliarity and a lack of suitable technical equipment were highlighted as potential reasons the teaching was negatively impacted during the pandemic.<sup>317</sup> The National Agency for Education has therefore reviewed and supplemented the Agency's support in these indicated areas. The National Agency for Education has also investigated how schools can work to increase pupils' physical activity, as sedentary behaviour has been assessed to have increased during the pandemic.

### **Practical–aesthetic subjects**

To get an idea of how the pandemic affected teaching in the so-called practical–aesthetic subjects, teachers in these subjects were contacted. Based on the results

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<sup>316</sup> Skolverket.se (2022). *Koll på pandemins påverkan* [Tracking the impact of the pandemic].

<sup>317</sup> Swedish National Agency for Education (2021) *Covid-19-pandemins påverkan på skolväsendet, delredovisning 3* [The impact of the COVID-19 pandemic on the education system, Interim Report 3].

of this investigative work, the National Agency for Education has chosen to develop web-based support material offering concrete examples of working methods for inspiration.<sup>318</sup> The primary target groups are principals and organisers. Teachers can also get ideas from the material. Some of the examples are more general and can be applied to all so-called practical–aesthetic subjects while others are more subject-specific. The material also provides suggestions for longer-term efforts based on experience from the pandemic.

### **Swimming instruction**

To get an idea of how the pandemic affected swimming instruction, contact was made with physical education and health teachers, external experts from associations, and the sports administration office for the City of Stockholm. Several organisers turned out to have made well-targeted investments to be able to carry out swimming instruction despite staff shortages and difficulties getting to and from the swimming pools when public transport was not an option. Some of the measures adopted during the pandemic have shown to be beneficial even in the longer term and have therefore become part of school activities. One example is the introduction of a ‘swim bus’, that is, a chartered bus that drove the pupils between the school and the swimming pool.

### **Physical activity**

The National Agency for Education’s web page *Mer rörelse i skolan*<sup>319</sup> [More movement in the schools] was assessed to be able to contribute to addressing the needs concerning pupils’ increased sedentary behaviour during the pandemic. The material provides schools with a basis for charting their current situation and examples of how the pupils can be offered more physical activity during lessons, between lessons and on longer recesses.

### **Support for teaching in Swedish for immigrants**

The National Agency for Education’s website has a range of support material intended for teachers teaching Swedish for immigrants (SFI) in adult education at upper-secondary level (Komvux). This support material was supplemented in autumn 2022 to make it more accessible and was published under the title *Stärk sfi-undervisningen efter pandemin*<sup>320</sup> [Strengthen SFI teaching after the pandemic]. The material is designed for use in planning and carrying out teaching to strengthen the pupils’ knowledge development and promote motivation for learning. The material covers a range of areas and shows how these can be worked with. Some of these areas are: charting of newly arrived pupils’ knowledge; organising for study supervision; digital tools in teaching; planning,

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<sup>318</sup> The teachers were given the opportunity to describe in writing how their subjects were affected by the pandemic and how their respective schools have handled any consequences. The teachers’ answers showed great differences between different organisers, different schools and even within the same school, with regard to both how much teaching was impacted and how any consequences of the pandemic were dealt with. Some of the teachers who felt that their teaching had been affected to a great extent answered that organisers or principals did not prioritise the practical–aesthetic subjects in their planning of any compensatory measures. Other teachers had good experiences and examples to share. The greatest differences between organisers and schools are reflected in the surveys and dialogues conducted by the National Agency for Education, and which have been reported earlier in this final report.

<sup>319</sup> Skolverket.se (2022). *Mer rörelse i skolan* [More movement in the schools].

<sup>320</sup> Skolverket.se (2022). *Stärk sfi-undervisningen efter pandemin* [Strengthened SFI teaching after the pandemic].

carrying out and following up on study visits; and SFI in combination with vocational education and training – so-called *combination education*.

## The National Agency for Education's support to the preschools

In the National Agency for Education's investigations into how the pandemic has affected education in the preschools, attention has been called to a few specific areas. For example, the teaching of children in need of support has been affected, and there was a general increase in absenteeism at the country's preschools.<sup>321</sup> For the target groups in the preschools, the National Agency for Education has compiled existing support material and information connected to the pandemic's consequences on the web page *Att arbeta uppföljande i förskolan efter pandemin* [Follow-up work in the preschools after the pandemic]. The target groups reach a selection of the National Agency for Education's support materials via the web page. The selection is based on the needs identified in the above-mentioned survey. An example of material that the target groups can choose to use is the language-development material *Läs tillsammans!*<sup>322</sup> [Read together!], which emphasises the importance of cooperation with the guardians. *Läslyfter*<sup>323</sup> [Reading boost] also contains language-development material. The *Tillgänglig förskola*<sup>324</sup> [Accessible preschool] module also emphasises how the teaching and the learning environment can be made accessible according to each individual child's conditions and needs. The web page *Hållbar utveckling samt hälsa och rörelse i förskolan*<sup>325</sup> [Sustainable development and health and movement in the preschools] provides support and inspiration in this work. Finally, there is an audio file (podcast<sup>326</sup>) about connection and security, because the National Agency for Education has seen that the preschools' contact with guardians has been affected during the pandemic, which in turn may have affected the children.

## Support for collegial learning

The National Agency for Education has published a web page *Kollegiala samtal om missade undervisningsmoment under coronapandemin*<sup>327</sup> [Collegial conversations about missed teaching elements during the coronavirus pandemic], where organisations can get information on how they can work collegially to detect and counteract negative impacts on pupils' knowledge development due to the pandemic. The web page gives examples of nine conversation modules that can be used in collegial discussions. The web page also addresses issues that can help chart missed teaching elements, factors surrounding the follow-up of

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<sup>321</sup> Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet delredovisning 3* [The impact of the COVID-19 pandemic on the education system, Interim Report 3].

<sup>322</sup> Kulturrådet.se (2022). *Läs tillsammans* [Read together].

<sup>323</sup> Skolverket.se (2022). *Läslyftet i förskolan* [Reading boost in the preschools].

<sup>324</sup> Skolverket.se (2022). *Tillgänglig förskola* [Accessible preschool].

<sup>325</sup> Skolverket.se (2022). *Hållbar utveckling samt hälsa och rörelse i förskolan* [Sustainable development and health and movement in the preschools].

<sup>326</sup> Skolverket.se (2022). *Arbeta uppföljande i förskolan efter pandemin* [Follow-up work in the preschools after the pandemic].

<sup>327</sup> Skolverket.se (2022). *Kollegiala samtal om missade undervisningsmoment under coronapandemin* [Collegial conversations about missed teaching elements during the coronavirus pandemic].

activities planned to counteract any negative knowledge developments among the pupils, as well as tips concerning digital meetings.

### **The National Agency for Education continues to provide pandemic support**

The National Agency for Education's work to provide support to organisations in handling the long-term consequences of the pandemic continues now within the Agency's other assignments. For example, the National Agency for Education plans to continue to develop the web page *Hälsofrämjande skolutveckling* [Health-promoting school development] to provide a common entry to the National Agency for Education's existing support in the areas of pupil health, knowledge and values, charting and formative teaching. An analysis basis for organisers and principals to develop the work with leading and organising school developments that promote learning and health is also planned. Another example concerns publishing experiences from the organisations regarding promoting motivation among SFI pupils to participate in face-to-face instruction. Finally, the National Agency for Education plans to hold a webinar under the theme of health-promoting school development. The aim of this is to share experience and knowledge focused on the schools' collective missions of knowledge, values and health-promoting school development.

### **SPSM's work for children and pupils in need of support during the pandemic**

The following section describes the work of the National Agency for Special Needs Education and Schools (SPSM) for children and pupils in need of support during the pandemic and is described by SPSM. SPSM's advisers assert that many schools had difficulties maintaining pupils' support efforts during the pandemic and for many pupils in need of support, remote teaching affected their abilities to reach the goals. The need for continued follow-up and evaluation that highlights the education situation for children and pupils with disabilities is great.

The consequences of the pandemic have differed at the individual level. As the National Agency for Education has previously shown, remote teaching has worked well for some, but not for all pupils. Examples include pupils with hearing or vision impairments who had problems with remote teaching, although there were also pupils who report that digital teaching worked well because they had the opportunity to make individual adaptations in a calm environment. According to a European study, remote teaching may also have worked well for pupils who experience the school environment as a difficulty.<sup>328</sup>

### **Changes in SPSM's support during the COVID-19 pandemic**

During the pandemic, the National Agency for Special Needs Education and Schools (SPSM) developed the digital support that was offered to staff in

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<sup>328</sup> European Agency for Special Needs and Inclusive Education (2021).



preschools and schools. Courses that were previously physical became digital and special education advising mostly took place digitally. The new way of working enabled quicker feedback and closer contacts between advisers and organisers. Support and contacts with educational material publishers as well as government grants supporting higher education institutions, organisers and other education providers were also digitalised. During the pandemic, SPSM offered digital study resources free of charge. SPSM continuously published information, research and support for working remotely on their website. A lasting change in the wake of the pandemic is that SPSM offers an increasing amount of web-based support and a larger digital course offering to increase accessibility and reach more people. The public authority's special education investigations require physical encounters, which means they could not be carried out during the period of the pandemic in which restrictions made travel and in-person meetings impossible. In-depth special education investigation was offered instead, which took place digitally. When in-person meetings once again became possible, investigations that could not be conducted during the pandemic were carried out.

SPSM maintains that there has been no major change in the past three years in the questions posed to the public authority or in the support needs expressed by preschools and schools. The largest category of inquiries concern combinations of disabilities, where most inquiries relate to speech, language and communication. Inquiries concerning neuropsychiatric disabilities and visual impairments continue to be disability categories in which preschools and schools request support to a large extent. That SPSM receives many inquiries concerning visual impairments may be because persons with visual impairments comprise a small group in society and because schools generally lack competence on the educational consequences of visual impairment.

## 8. Concluding discussion

### The education system has made a decisive effort to limit the impact of the pandemic

The COVID-19 pandemic was an extraordinary situation for the Swedish education system that brought new challenges and uncertain conditions for the school organisations. The National Agency for Education can see that the education system has made a decisive effort to limit the impact of the pandemic on pupils' knowledge development and well-being. Organisers and school management have taken great responsibility to ensure that activities could be carried out in a functional manner and teachers, preschool teachers and other school staff have shown great commitment to making sure that the teaching and care of children and pupils worked during the pandemic. The pupils have also persevered and adapted to new conditions. This strength and ability to adapt is something that the Swedish education system must take advantage of and learn from for the future.

### Important that a regular school day could be maintained to a relatively great extent

Many European countries chose at some point during the pandemic to close all educational organisations from preschools to adult education. Sweden chose a different strategy and stood out internationally by not implementing a general closure of preschools and compulsory schools. Studies from the National Agency for Education, Schools Inspectorate and other actors show that the school was an important social institution for children and young people during the pandemic.<sup>329</sup> When the restrictions during the pandemic entailed severely restricted social contacts and cancelled leisure activities, the school could offer a social context in which children and young people could meet peers and have positive and supportive relationships with adults. That a regular school day could be maintained for, above all, younger children and pupils in Sweden seems to have had a positive influence on both well-being as well as knowledge development and social development. In its studies, the National Agency for Education can see signs that it is precisely the relational abilities that show residual longer-term effects for pupils who have been absent a lot or received large portions of their teaching remotely. The National Agency for Education therefore assesses that it has been positive for children's and pupils' development that the preschools and schools were not closed.

The National Agency for Education can state that teachers, preschool teachers and other staff made a decisive effort to address the challenges brought by the

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<sup>329</sup> Jenholt Nolbris et al. (2022). *Young children's voices in an unlocked Sweden during the COVID-19 pandemic* and Forte (2022). *Sociala utmaningar för unga i spåren av pandemin – en kunskapsöversikt* [Social challenges for young people in the wake of the pandemic – a knowledge overview].

pandemic. When large parts of society closed down, teachers and preschool teachers continued to go to work to give children and pupils a good education and safe care. This was significant in mitigating the long-term consequences of the pandemic for education in the school system. However, the high workloads, and for many also stress and anxiety, negatively affected the work environment and took its toll on the staff. It is clear that there is a need for measures going forward to reduce the staff's workloads and provide time for recovery.

### **Teachers adjusted and developed new flexible ways of working – crucial to protect the increased digitalisation**

Although the pandemic was in many ways taxing and challenging, many teachers managed in a short period of time to adjust and adapt their teaching to the new conditions. New methods and approaches emerged that in many ways will also contribute with positive and important insights that are also of importance for teaching into the future. Above all, this concerns an increased understanding of the possibilities of digitalisation and new ways of using digital technology to improve teaching. One concrete example of this is that teachers now use virtual learning environments to a greater extent to create clarity and structure in their teaching. Digital meetings and parent–teacher conferences also seem to be a positive effect of the pandemic that is here to stay.

The pandemic has thus brought a boost in digital skills for pupils and teachers. The increased digitalisation should largely be considered a positive effect of the pandemic, not least because it has brought new flexible ways of working and more opportunities to adapt the teaching to different needs. However, the National Agency for Education's investigations indicate that the conditions for rearranging operations and digitalising at the rapid pace needed have varied. There are great differences, both between and within schools, in terms of teachers' digital skills and access to digital technology. The responses to the National Agency for Education's survey of upper-secondary teachers in autumn 2022 also suggest that the digital development has been rolled back at some schools, when access to digital tools was removed after the pandemic.

It is important that there is good and equal access to digital tools and resources. To take advantage of the positive experiences, it is crucial that all children, pupils and staff have equal access to digital technology and digital competence. Correctly used, digital tools can improve teaching and it is important that all children and pupils benefit from this. To reach this goal, teachers, preschool teachers and other staff need an increased opportunity for skills development in terms of digital competence. Every school also needs to have developed educational and technical support to ensure that the technology used in the teaching works.

### **The National Agency for Education recommends**

- Organisers and principals should protect the new ways of working that emerged during the pandemic, which in many cases can make positive contributions to the teaching even in normal circumstances.
- Organisers and principals must ensure that teachers, preschool teachers and other staff have a high level of digital competence and good and equal access to digital technology.

## **Continues to be important to work to compensate for the loss of knowledge that occurred during the pandemic**

The National Agency for Education's overall picture, based on the assessments made by organisers, principals and teachers, is that absenteeism in the preschools and compulsory schools, as well as remote teaching in the lower-secondary compulsory, upper-secondary and adult education at upper-secondary level (Komvux) has had an impact on children's and pupils' knowledge development. Some groups of pupils and areas of knowledge have been affected more than others. The National Agency for Education also assesses that there is a risk that when some pupils do not acquire the knowledge or proficiency they normally would have, this may negatively affect their continued schooling if sufficient efforts are not made to compensate for the pandemic's consequences. It is important, however, to remember that, apart from the international knowledge measurements, there is a lack of measurements of the development of knowledge over time among Swedish pupils. This means that assessments in this area are burdened with great uncertainty. The picture of how the pandemic has impacted may also be revised over time, among other things when international studies are published in the future.

### **Efforts must be directed especially at children and pupils who do not have Swedish as their first language**

Pupils who already before the pandemic had poorer conditions to absorb the teaching are assessed to have been hit particularly hard by the pandemic's consequences. This concerns pupils who are in need of support, pupils whose guardians have a shorter educational background and pupils with another native language than Swedish. Pupils with poorer conditions in the form of motivation and support from home, or through a lack of social networks, have also had poorer opportunities for development and learning when teaching was conducted remotely.

The National Agency for Education can see that, at all levels in the school system, there appears to be a certain loss of knowledge among many children and pupils who do not speak Swedish at home. In the preschools, absences were higher

among children who do not have Swedish as a first language, which could have hampered their language development. In both the compulsory schools and the upper-secondary schools, pupils with weaker knowledge in Swedish have a greater loss of knowledge than pupils on average. In adult education at upper-secondary level (Komvux), there is a clear impact on knowledge development particularly in Swedish for immigrants (SFI), which has led to pupils being in the programme for a longer time, which in turn may have delayed their entry into the labour market.

In addition to poorer conditions to learn and develop the Swedish language in the preschools, schools and Komvux, isolation due to restrictions affected the opportunities to apply their language skills in society at large. Cancelled leisure activities, closed museums, libraries and language cafés affected both children's and adults' opportunities to encounter Swedish in everyday life and likely contributed to slower language development during the pandemic. This risks having consequences even in the long term. Children who start school with weak skills in the Swedish language are at risk of having difficulties keeping up right from the start, which can affect all of their further schooling. Language is a basic prerequisite to be able to absorb the teaching and weak skills in Swedish can therefore have secondary effects in other subjects. In all, there is a risk that these children's and pupils' continued knowledge development will be negatively affected. Good skills in Swedish are also crucial for learning and establishment on the labour market. The National Agency for Education therefore wants to emphasise the importance of all levels in the education system taking an overall approach to ensure that pupils with another native language than Swedish are given the opportunity to receive sufficient support as needed in their language development and to catch up in their knowledge development.

### **Pupils' knowledge development in mathematics needs to be particularly followed up and supported**

Organisers, principals and teachers assess that there has been some impact on the pupils' knowledge development in most subjects as a consequence of absences and remote teaching during the pandemic. The development of knowledge seems, however, to have been especially adversely impacted in certain subjects, such as mathematics and modern languages. Mathematics and languages are subjects characterised by their cumulative structure, in which it is crucial that the pupils have acquired sufficient knowledge from previous levels to progress in their learning. It is also these subjects that seem to have been the most difficult for the pupils to learn remotely. Practical subject elements have also been affected to a greater extent during the pandemic. The National Agency for Education's general view is that it is particularly in mathematics that a clear loss of knowledge occurred more broadly and in a way that risks accompanying the pupils going forward. As previously mentioned, however, there have been great variations in terms of the pandemic's impact on knowledge development, between different school forms, schools, pupil groups and between individual pupils.

Mathematics is a subject that many pupils have difficulties coping with even under normal conditions, and the National Agency for Education can see that the conditions were made even more difficult for the pupils during the pandemic. One reason for this is that the increased absences meant that the pupils lost continuity in the teaching. Further aggravating circumstances were that the upper-secondary schools had remote teaching for long periods of time. Both teachers and pupils felt that there were difficulties involved in teaching and in getting help when direct contact in the classroom was not possible. Many teachers felt that it was more difficult to see how the pupils were keeping up with the mathematics instruction remotely, and many pupils hesitated to ask for help in situations when the entire class was connected at the same time on a screen. It has also emerged that the content crowding in the upper-secondary mathematics courses makes mathematics teaching particularly sensitive to absences among pupils and teachers. In all, there is a risk that when many pupils have not acquired the knowledge or proficiency that they normally would have in the subject of mathematics during the pandemic, this may follow the pupils throughout their continued knowledge development. The new subject syllabi in the upper-secondary schools, which mean that the pupils encounter more complex subject content earlier, along with the pupils' impacted prior knowledge from the compulsory schools, risks further aggravating this development.

It is the National Agency for Education's overall assessment that schools now need to work actively to monitor the impact on the pupils' knowledge development and meet the needs for support that exist. The Agency sees that there is a particular need to focus on pupils' mathematics skills.

### **Strengthened teacher supply and pupil health services crucial to addressing the negative consequences of the pandemic**

The pandemic has highlighted and amplified several of the challenges that exist in the education system. These include the challenge to secure a good supply of teachers. Several of the National Agency for Education's studies have pointed out that the lack of trained teachers has been an obstacle to counteracting a loss of knowledge at many schools. A good pupil-teacher ratio and a good supply of staff seems to have reduced the vulnerability to staff absences and mitigated the consequences of the pandemic. Differences in pupil-teacher ratio is a factor that may explain the differences between schools and organisations when it comes to the extent to which it has been possible to give children and pupils an education of good quality during the pandemic. Considering that the pandemic seems to have particularly affected knowledge development for children and pupils with first languages other than Swedish, the need for access to teachers with specific competence in second-language teaching is also accentuated.

The National Agency for Education sees that the schools have made great efforts to get the pupil health work to function during the pandemic. The opportunities to conduct health-promoting and preventative initiatives have been limited,

however, in both the compulsory and upper-secondary schools. At the same time, the well-being of some pupils has worsened during the pandemic and many teachers testify that an increasing number of pupils are having difficulties connected to motivation for their studies. That pupil health services had poorer conditions to work with preventing ill health and obstacles to learning entail a risk that pre-existing problems may have been amplified or reinforced among some pupils during the pandemic. It is therefore important that the organisers and principals strengthen the pupil health functions in order to counteract the pandemic's negative consequences for the pupils' continued learning and well-being.

The National Agency for Education has previously pointed out teacher supply as a major challenge for the education system<sup>330</sup> and can now see that the pandemic has emphasised the importance of access to qualified and competent teachers and a functioning teacher supply to address the needs that have arisen due to the pandemic. In all, the National Agency for Education believes strengthened teacher supply and pupil health to be the keys to addressing the residual consequences of the pandemic in terms of children's and pupils' well-being and knowledge development.

### **The National Agency for Education recommends**

- Organisers and principals need to direct special efforts to strengthen language development for the children and pupils with a native language other than Swedish who are in need of this. This is important to counteract the long-term impact on this group of pupils' knowledge development.
- Organisers and principals need to actively work to monitor the impact of pupils' knowledge development and meet the needs for support that exist, especially regarding mathematics.
- Organisers and principals need to strengthen the pupil health functions to be able to address the pandemic's negative consequences for the pupils' continued learning and well-being. Not least, the promotion and prevention work may need to be developed to address the needs that arose during the pandemic. It is important here that the entire school's responsibility, not only the pupil health services', is highlighted.

## **Changed absence norms may affect the pupils' learning in the future**

In the wake of the pandemic, the National Agency for Education can see tendencies toward a residual increase in absenteeism in the education system. The pandemic contributed to an increased caution towards attending preschool and school activities in the presence of cold symptoms. This also applied in society at

<sup>330</sup> Swedish National Agency for Education (2020). *Skolverkets lägesbedömning 2020* [The Swedish National Agency for Education's assessment of the situation, 2020].

large. Many are now more restrictive about not allowing sick children and pupils to be present on the organisation's premises. This has had several positive effects, such as that the spread of other illnesses other than COVID-19 have also been limited. However, the National Agency for Education sees that this changed absence norm could give rise to a certain increase in general absenteeism in the schools and preschools going forward. As there is currently no clear regulation corresponding to the relatively extensive opportunities for remote teaching that existed during the pandemic, there is a risk that this will have consequences later on as increased absenteeism without the opportunity for remote teaching can affect the pupils' knowledge development.

The National Agency for Education also sees other tendencies toward increased absenteeism connected to the experiences of remote teaching. Several schools report that both pupils and staff after the pandemic can miss the flexibility that remote teaching provided and that some groups of pupils enjoyed working remotely. In the wake of this, the National Agency for Education sees signs that many pupils would like to receive teaching remotely and that it could be difficult to motivate them to take part in teaching on school premises. For certain groups of pupils in particular, but even among pupils in general, there have been challenges coping with the return to full-time instruction in the schools.

The digital leap that teachers and pupils have taken during the pandemic has the potential to improve the teaching. At the same time, it is important that the digital technology is used as a complement to face-to-face instruction in the classroom. The National Agency for Education assesses that there is a significant risk of increased pupil absences when teaching is made more accessible digitally. The pandemic has shown that there are positive aspects of teaching remotely for short periods of time, such as during absences due to mild symptoms or for pupils with problematic absenteeism. The National Agency for Education has also been able to see examples of teachers continuing to teach remotely from home with milder symptoms. The National Agency for Education would like to emphasise, however, that there is currently no clear legislation governing the possibilities for remote teaching based on such conditions. The National Agency for Education would also like to emphasise the importance of meeting and learning together in the classroom.

### **The National Agency for Education recommends**

- Preschools and schools need to work actively with attendance-promoting work and following up on both short- and long-term absences to limit the pandemic's absence-linked consequences.
- There may be a need to continue to monitor when and to what extent remote teaching is used in the schools.



## The pandemic has highlighted and reinforced previous challenges with equality in the education system

While the education system has made a decisive effort to limit the pandemic's impact, it has been difficult to fully carry out teaching and provide supporting efforts with the same quality as usual during the changed circumstances brought by the pandemic. The National Agency for Education also sees that the pandemic has meant that previously known weaknesses in the school system have been accentuated in importance and effect, which has impacted the pupils' conditions for learning and well-being during the period.

The National Agency for Education has previously stated that the Swedish education system is divided. Many organisers have well-functioning and effective governance, and most schools provide education of good quality. Yet there are also schools and organisers with major problems, with shortcomings in governance and teaching quality. The differences between how well pupils with different backgrounds succeed in school are great, and the pupils' backgrounds play an increasingly greater role in their results. Pupils from homes without study habits and foreign-born pupils who came to Sweden during their school years generally succeed less well in school. The differences between different schools are also growing and the increasing school segregation has led to the schools being more and more divided in terms of pupil composition. In all, school segregation has a negative impact on equality and risks worsening the education system's ability to compensate for pupils' different conditions to absorb the education. This impacts pupils with less favourable backgrounds the hardest.<sup>331</sup> So was also the case during the pandemic and the National Agency for Education can clearly see that the pandemic has struck unevenly. Some school organisations and pupil groups have been hit particularly hard by the pandemic's consequences, while more advantaged schools and groups of pupils have made it through the pandemic relatively unscathed. A clear picture emerges that the weaknesses that existed in the Swedish education system before the pandemic have had an even greater impact during the pandemic, within increased differences in the pupils' education, support and development opportunities as a result.

### **The pupils have not had the same conditions for learning**

All preschools, schools and adult education organisations were not able to offer children and pupils teaching during the pandemic of the same quality as previously. In the preschools, for example, four of ten principals noted that the quality of the teaching deteriorated during the pandemic, while six of ten principals did not see any impact. There were similar tendencies in the compulsory and upper-secondary schools. This shows that there have been great difference between different preschools, schools and organisations in the extent to

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<sup>331</sup> Swedish National Agency for Education (2020). *Skolverkets lägesbedömning 2020* [The Swedish National Agency for Education's assessment of the situation, 2020].

which it has been possible to give children and pupils an education of good quality during the pandemic. This might, for example, be because the organisation's teacher supply affected the opportunity to substitute for absent staff and to create a reasonable workload with time for planning and carrying out good teaching. There have also been great differences in terms of access to technical solutions for remote teaching and in the competence to use these. These differences have been great both between and within schools, which led to clear differences in quality in the teaching that the pupils received remotely.<sup>332</sup>

The National Agency for Education sees that the shortcomings in equality in the school system before the pandemic seem to have been accentuated and amplified in importance during the pandemic. Overall, the National Agency for Education assesses that the pandemic reinforced the differences in the pupils' opportunities to receive a good and equal education and to develop as much as possible.

### **Pupils' home conditions gained increased importance for the pupil's learning**

The pandemic meant that many pupils periodically received their teaching remotely. When the pupils' study environments were moved from the classroom to the home, the pupils' home conditions took on increased importance for their conditions for learning and well-being. Some pupils had access to their own separate workplace with good technical conditions and guardians or older siblings at home who could assist the pupils in their studies. Other pupils did not have these conditions, however, which meant that their studies were adversely affected in the form of the lack of a positive and peaceful study environment or reduced access to support and functioning technology. The limitations that came with remote teaching as a form of instruction also meant an increased responsibility for the pupils to create structure for their studies and to maintain concentration and study motivation. The pupils often needed to take greater responsibility to make contact with the teacher if they had questions or if the pupil got stuck, and it became up to the pupils themselves to report worsening well-being or other study needs. How the pupils managed to handle this increased responsibility was affected in part by the pupils home conditions and support from the home, and the pupils describe, among other things, how they had to fight harder, spend more time on their studies and get more support from their immediate surroundings during remote teaching.<sup>333</sup> It was also more difficult for teachers to detect and offer support and stimulation when teaching remotely.

Their home conditions took on increased importance for preschool children and pupils in the lower years of compulsory school as well. These children and pupils were often affected by recurring absences during the pandemic and where thus at home without teaching, or with teaching in the form of homework or other independent study. The possibilities of the guardians to assist the pupils in their

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<sup>332</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

<sup>333</sup> Swedish Schools Inspectorate (2021). *Fjärr- och distansundervisningens konsekvenser* [Consequences of remote teaching].

independent study therefore had increased significance for the pupils' knowledge development. Children's and pupils' home conditions could likewise, in the event of prolonged absence from preschool and school, affect their social development, depending on the child's social situation in general.

Overall, the National Agency for Education sees that the pandemic has contributed to strengthening the importance of pupils' home conditions when it comes to their knowledge development and well-being. The National Agency for Education can clearly see in studies that principals and teachers point out that pupils with less favourable home conditions have been particularly affected in their learning and well-being during the pandemic.

### **The compensatory mission was made more difficult, which may have long-term consequences**

The National Agency for Education sees that it has been more difficult for the organisations to work with the compensatory mission during the pandemic. Increased workloads for teachers and pupil health services staff and high absence rates among both staff and pupils have made it more difficult to monitor the pupils' support needs and to implement support activities in all forms of schooling. In the upper-secondary schools in particular, the long periods of remote teaching contributed to additional difficulties in both detecting pupils' support needs and in providing support and stimulation. This limited the pupil health services' opportunities to carry out their mission and support all pupils fully during the pandemic. This occurred in conjunction with increased differences in the pupils' conditions for learning and a greater importance of the pupils' home conditions for their knowledge development and well-being. The schools' compensatory mission to weigh differences in the pupils' conditions to absorb their education was consequently made more difficult during the pandemic. This particularly affects children and pupils with support needs, with less favourable socio-economic home conditions, or with another native language than Swedish. The National Agency for Education therefore sees a risk that an unevenly distributed loss of knowledge could persist as the schools' compensatory mission was made more difficult. In the long term, this could have consequences on the pupils' future study and work opportunities, and strengthen the segregation between different groups' opportunities in society.

The National Agency for Education therefore believes it to be crucial that preschools, schools and adult education organisations develop a clear picture of which children and pupils have had worse conditions in their knowledge development during the pandemic and ensure that sufficient efforts are made to provide them with the opportunities to develop as far as possible. Without this, the existing tendencies toward increasing differences in the schools risk becoming cemented and the segregation in the school system and society becoming further amplified.

### **The National Agency for Education recommends**

- Preschools and schools need to work actively with the compensatory mission and continuously monitor the pupils' development so that all children and pupils are given the same opportunity to develop as far as possible.
- Organisers need to take a greater responsibility for ensuring equal education in their organisations and for ensuring that sufficient resources are provided to be able to compensate for the pandemic's impact on pupils' learning and well-being, at both the individual and school levels.

## **Experiences of governance of the schools during the pandemic can provide insights for the future**

The governance of the schools was drastically affected during the pandemic. New regulations were introduced that changed the conditions for the organisations in the education system. The Public Health Agency and other public authorities also produced general guidelines and recommendations that entailed major adjustments for, among other things, the implementation of teaching and absences in the event of symptoms. Gradually, the regional infection control physicians were also given the responsibility to limit the spread of infection in the education system at a regional level, and decide on school closures and other measures based on that. This meant an increased central governance of the education system during the pandemic from both the Government as well as national and regional authorities. Yet organisers testify to a lack of clarity in this governance and state that new requirements were placed on the organisers to continuously compile and interpret the governing rules in place for school operations and to support the principals in the implementation of these.

The National Agency for Education can see that at times there arose a number of different interpretations of how this new governance should be expressed when thousands of organisers were making these interpretations. This meant that there was no uniform management of the crisis that the pandemic entailed and many organisers and principals felt that they would have benefited from even clearer support from the public authorities in making these difficult interpretations. At the same time, Sweden is a geographically large country in which the spread of infection varied widely over time in different parts of the country. It can also be stated that it is the organisers who, as those responsible for implementing the education system's activities, have knowledge on the local conditions that the state in its normative and supportive role does not.

It is important to now draw lessons from the experiences of school governance during the pandemic in order to equip the Swedish education system for future crises. The Corona Commission points to the need to supplement the principles in terms of crisis management in Sweden and, among other things, consider introducing an authority directly under the Government to lead the operative work

during a serious crisis in peacetime.<sup>334</sup> It is difficult to assess in more detail what consequences reforms in this direction would have in the area of the schools. Regardless, further strengthened cooperation between authorities is important to create clarity towards the school's target groups in potential future crises. The National Agency for Education also assesses that a more clearly defined role for the National Agency for Education in the regulatory requirements drawn up in this context could have provided better conditions for the National Agency for Education to assume more overall responsibility. The National Agency for Education acted more forcefully the longer the pandemic went on, but is of the view that the formal mandate for the National Agency for Education could have been more clearly written in the Compulsory School Ordinance so that the National Agency for Education could adopt a more normative role for how the work with the schools could be conducted.

The National Agency for Education is positive to the Agency's new mission as an emergency response authority. With a clearer role during crises, the National Agency for Education can better contribute to more clearly conveying governing signals and addressing the needs that arise by meeting and exchanging experiences between the different levels of the education system. Not least, the Agency would like to emphasise the importance of cooperation interfaces between municipal organisers and the independent schools that operate within the municipality. The National Agency for Education also sees the importance of, in the event of a future crisis connected with school operations, improving the National Agency for Education's work to meet not only the organisers' and principals' information needs, but also those of other involved target groups, such as guardians and pupils.

In conclusion, the National Agency for Education can state that Sweden to a high extent chose a model in which relatively few changes in the regulatory framework with requirements on organisers and organisations were made and in which many decisions were instead left to be taken at the local level. That education and teaching should be carried out with the same requirements on content and quality was also what the Government and responsible public authorities, with a few exceptions, communicated.<sup>335</sup> There is reason to reflect, with thought to future crises, on whether clearer prioritisations should be made by the state to protect the pupils' and staff's working environments and ensure equal handling of a suddenly arising situation.

### **The National Agency for Education recommends**

- Public authorities and other concerned actors need to further strengthen and develop their cooperation to create good conditions to support the education system in the event of a crisis.

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<sup>334</sup> SOU 2022:10.

<sup>335</sup> One such exception was the National Agency for Education's communication on 20 January 2022. See skolverket.se (2022). *Förvärrat läge i förskola och skola kommande veckor* [Deteriorated situation in preschools and schools in coming weeks].

- If the National Agency for Education is to be able to act more forcefully, the Government should in future crises consider giving the National Agency for Education a clearer role in the regulatory requirements that are drawn up.
- The Riksdag and Government should, in future crises, consider whether clearer prioritisations within the education system should be made at the national level.

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## **Regulatory framework**

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# Appendix 1. Rules and regulations for education and teaching during the pandemic

The Swedish education system is always, even during the pandemic, subject to the Swedish Education Act (2010:800) and all other school ordinances. Below is a description of the rules and regulations that applied for education and teaching within the education system due to the COVID-19 pandemic. The descriptions are provided in chronological order.

## Year 2020

### February

On **1 February**, the Government decided that the provisions of the Communicable Diseases Act (2004:168) concerning diseases dangerous to the public and society would be applied from 2 February to infections with COVID-19.<sup>336</sup> Infection reporting and tracking became mandatory and all other infection control measures in the law became possible to take. For employers, this also meant that cases of COVID-19 in the organisation had to be reported to the Swedish Work Environment Authority pursuant to the Work Environment Act (1977:1160). The Riksdag then amended the Communicable Diseases Act in accordance with the Government ordinance. The classification was in effect until 31 March 2022.

### March

On **1 March**, the Public Health Agency of Sweden assessed that barring healthy schoolchildren from school was not an effective measure for combating the spread of infection. It was, according to the public authority, not likely that healthy children could spread infection.<sup>337</sup>

On **11 March**, the World Health Organization (WHO) declared that the outbreak of COVID-19 constituted a pandemic.<sup>338</sup>

On **16 March**, Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections came into effect.<sup>339</sup> The provisions in the ordinance were to be applied to ensure that pupils in the preschool class, compulsory schools, compulsory schools for pupils with intellectual disability, compulsory special needs schools, Sámi schools, upper-

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<sup>336</sup> Ordinance (2020:20) that the provisions in the Communicable Diseases Act (2004:168) on diseases dangerous to the public and society shall be applied to infection with 2019-nCoV.

<sup>337</sup> Folkhälsomyndigheten.se (2020). *Ingen effektiv åtgärd att låta friska skolbarn stanna hemma* [Letting healthy schoolchildren stay home not an effective measure].

<sup>338</sup> WHO.se (2020). *WHO Timeline – COVID-19*.

<sup>339</sup> The ordinance was announced with the support of the Government's authority in Chapter 29, Section 29 of the Education Act (2010:800) and applied until 31 July 2022.

secondary schools, and upper-secondary school for pupils with intellectual disability their right to education if it was not possible during a certain period to conduct operations due to staff absences occasioned by COVID-19, if the organisers kept the school unit closed after consultation with infection control physicians in order to counteract the spread of COVID-19, if the school unit was within an area that was blocked off under the Communicable Diseases Act or if an organiser kept one or more school units closed according to a recommendation from the Public Health Agency that affected the school area.<sup>340</sup>

A closed school unit meant that the pupils would not receive any teaching on school premises or that no education at all was conducted temporarily. Staff absences occasioned by COVID-19 included absences for several different reasons, including employees who were sick or taking care of a sick child or relative, staff who belonged to a particular risk group, and other situations, such as that employees couldn't get to school because public transit was not running.<sup>341</sup>

The Ordinance on education in the school and other pedagogical activities during the spread of certain infections enabled the organisers for the mandatory school forms to circumvent certain provisions in the Education Act and the Compulsory School Ordinance (2011:185) concerning teaching hours.<sup>342</sup> It became possible for organisers to decide that the education would comprise more school days during an academic year or more hours per day or to place the education on weekends or holidays. With the exception of the preschool class, it was also made possible for organisers to decide that the education could comprise fewer school days or school holiday days per academic year and to place the education on other days than Monday to Friday, or that the academic year would start or stop at a different time. The organisers for the compulsory schools were also given the opportunity to arrange holiday school at other times. However, the pupils' total teaching hours was to correspond to the time they were entitled to under the Education Act. As regards pupils in school year 9, it was not possible to ensure their right to teaching hours by moving hours to the next academic year. The organisers were instead directed to use the opportunity to, for example, arrange teaching on weekends/holidays or extend the spring semester.<sup>343</sup>

With the exception of the preschool class, the organisers could also decide that the teaching time for one or more subjects could be divided between stages in a different way than in the Compulsory School Ordinance's schedule.<sup>344</sup> This

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<sup>340</sup> Section 2 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>341</sup> Ordinance (2020:1) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>342</sup> Section 3 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>343</sup> Ordinance explanation (Fm 2020:1) for Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>344</sup> Section 4 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

opportunity did not cover school year 9, however, and any redistribution of time needed to be done within the scope of the ordinance's period of validity.<sup>345</sup>

Organisers for the upper-secondary schools and the upper-secondary school for pupils with intellectual disability were given the opportunity to organise the academic year in a freer way than what applied under the Upper-Secondary School Ordinance (2010:2039).<sup>346</sup> This was through an opportunity to decide that the academic year would comprise more or fewer weeks, school days or holiday days, that the academic year could start or stop at other times, and to place school work on other days than Monday to Friday. Here too, the pupils must overall be ensured their right to teaching hours pursuant to the Education Act and the opportunities to take certain of the measures were limited when it came to pupils in the final school year.<sup>347</sup> The organisers could also place the start of the academic year later than in August in the event that the final school grades from the compulsory schools were decided so late that the admission process could not be completed at the normal time.<sup>348</sup>

The most central change that was introduced, however, was that the organisers for all school forms except for the preschool class could decide that the pupils would be given teaching in which the teacher and pupils were separated in space but not time, or separated in both space and time (remote teaching<sup>349</sup>), in addition to the existing conditions in the Compulsory School Ordinance and Upper-Secondary School Ordinance. If the organisers wanted to count teaching in which teachers and pupils were separated in both space and time towards the guaranteed teaching time, the organiser had to decide how many teaching hours the remote teaching corresponded to.<sup>350</sup>

In addition, increased opportunities were introduced in certain school forms to give pupils in one school unit the opportunity to receive education in another of the organiser's school units, certain opportunities for contract teaching, and increased opportunities for principals to decide on grades.<sup>351</sup>

The Ordinance on education in the school and other pedagogical activities during the spread of certain infections was adopted on 13 March 2020 and came into force on 16 March 2020. Several amendments, which are reported below, were implemented until they ceased to be valid on 1 August 2022.

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<sup>345</sup> Ordinance explanation (Fm 2020:1) for Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>346</sup> Section 5 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>347</sup> Ordinance explanation (Fm 2020:1) for Ordinance on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>348</sup> Section 6 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections, and Ordinance explanation (2020:1) on amending the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>349</sup> During the COVID-19 pandemic, different terms have been used to refer to teaching conducted remotely in different forms.

<sup>350</sup> Section 7 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections, and Ordinance explanation (2020:1) on amending the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections.

<sup>351</sup> Sections 8–10 of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.

On **17 March**, the Public Health Agency decided on a recommendation that teaching in all of the country's upper-secondary schools, adult education at upper-secondary level (Komvux), higher vocational education programmes and higher education institutions would be conducted as remote teaching. The aim was to curb the spread of COVID-19. The recommendation applied until 18 March.<sup>352</sup> The compulsory schools were not covered by the recommendation.

On **19 March**, the Riksdag decided on Act (2020:148) on the temporary closure of school activities in extraordinary events during peacetime. The law came into force on 21 March 2020 and still applies. The law gives the Government and the organisers the opportunity to, in extraordinary events in peacetime, temporarily close preschools, school units, school-age education or other activities under the Education Act. In addition to the Government now being given the mandate to decide on closures, an important difference from the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections is that the Act on the temporary closure of school activities in extraordinary events during peacetime does not aim to ensure children education, but rather to enable temporary closures of organisations for extraordinary reasons.<sup>353</sup> Unlike the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections, the Act on the temporary closure of school activities in extraordinary events during peacetime also covers preschools, school-age education and other educational organisations.

That an organisation is closed means, according to the Act on the temporary closure of school activities in extraordinary events during peacetime, that the premises are closed. This can mean that no activities are conducted at all, or that teaching is carried out but that pupils and teachers are separated in either space and time, or in space but not time (i.e., remote teaching).

For an organiser to be able to decide to temporarily close an organisation, the decision needs to be based on one of the following grounds:

- That such a large proportion of the staff are absent due to an illness that is dangerous to society that it is not possible to conduct operations for a certain period of time.
- That this, after consultation with infection control physicians, is a measure to counteract the spread of COVID-19.
- That the Public Health Agency has decided to block off the area in which the school is located.
- That the Public Health Agency recommends this.

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<sup>352</sup> Folkhälsomyndigheten.se (2020). *Lärosäten och gymnasieskolor uppmanas nu att bedriva distansundervisning* [Higher education institutions and upper-secondary schools now encouraged to conduct remote teaching] and Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools].

<sup>353</sup> Report 2019/20: UbU25.

Even though the school is closed, the Government or another public authority can require (with some relaxed terms in relation to the Education Act's education requirements) an organiser to offer:

- Children or pupils who, for physical, mental or other reasons are in need of special support which can only be offered physically at the *preschool* or *school-age educare* to be there.
- Children or pupils who have a guardian participating in essential services to be in the preschool, school-age educare or other educational organisation.

The law came into force on 21 March 2020.<sup>354</sup>

Based, among other things, on the new law, the Government decided on **20 March** to amend the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections. The amendments came into force on 22 March 2020. The key amendments included that the provisions in the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections were to be applicable even if *the Government* decided, pursuant to the Act on the temporary closure of school activities in extraordinary events during peacetime, to close the schools, and that children whose parents participated in essential services would be entitled to care if the school closed, as would children in need of care due to mental, physical or other, e.g., social, reasons. The National Agency for Education was also given the ability to cancel the national tests, which was later done (before this, the national tests could only be postponed).<sup>355</sup>

On **24 March**, the Public Health Agency decided on regulations and general guidelines (HSLF-FS 2020:9) on preventing the spread of COVID-19 at restaurants, cafés, etc., which also included school cafeterias. Among other things, it was stipulated that there must be procedures in place for preventing the spread of COVID-19 among visitors. Crowding or queuing were not allowed, and only seated service or takeaway were permitted. If there was a risk of spreading COVID-19, the infection control physicians could, in consultation with the municipality, decide to ban operations. The regulation came into force on 25 March and applied until 1 July 2020, when a new regulatory framework was developed to regulate infection control measures at food service establishments.<sup>356</sup>

On **24 March**, the Public Health Agency and National Agency for Education published information with advice on handling sick pupils and concrete proposals for measures that the school could take to reduce the risk of spreading infection.

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<sup>354</sup> Act (2020:148) on the temporary closure of school activities in extraordinary events during peacetime.

<sup>355</sup> Ordinance (2020:149) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections, and Regeringen.se (2020). *Ytterligare åtgärder med anledning av det nya coronaviruset* [Additional measures due to the new coronavirus].

<sup>356</sup> The Public Health Agency's regulations and general guidelines to prevent the spread of COVID-19 at restaurants, cafés, etc. (HSLF-FS 2020:9) and Regulations on the repeal of the Public Health Agency's regulations and general guidelines (HSLF-FS 2020:9) to prevent the spread of COVID-19 at restaurants, cafés, etc. (HSLF-FS 2020:36). In regard to food service establishments, see, e.g., Act (2020:526) on temporary infection control measures at restaurants and other businesses serving food.

On **27 March**, the Public Health Agency assessed that a closure of all schools in Sweden would not be a significant measure from an infection control standpoint. According to the Public Health Agency, there were no scientific studies showing that such a measure would have any major significance, and no data indicating any major spread of COVID-19 in the schools anywhere in the world.

## **April**

On **1 April**, the Public Health Agency decided on regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc., which were directed at both organisations and individuals. The regulations came into force on the same day they were decided and were amended a great number of times during the pandemic, to finally be repealed on 29 September 2021.<sup>357</sup> This meant that all organisations in Sweden, including schools, needed to ensure that they took appropriate measures against the spread of COVID-19. Such measures could be to post information, mark distances on the floor, hold digital meetings, offer hand-washing stations with soap and water and hand sanitiser, and avoid gatherings of people. Special advice to workplaces included ensuring that employees, if possible, kept their distance from each other and worked from home. All individuals in Sweden were covered by special advice on personal responsibility and were advised, among other things, to be careful with their hand hygiene, to keep their distance from other people and to refrain from participating in large social gatherings. Persons with symptoms of COVID-19 were recommended to stay at home and avoid social contacts.<sup>358</sup>

On **2 April**, the Government decided on an amendment to the Ordinance on education in certain forms of schooling in the education system during the spread of certain infections.<sup>359</sup> It thereby became possible to keep the schools *partly* closed and to offer a small number of pupils teaching on school premises. The pupils could be offered the chance to be in school if this was needed for practical course components, special support and examinations, or if the pupils were in need of this for mental, physical or other reasons. The amendment concerned the preschool class, compulsory schools, compulsory schools for pupils with intellectual disability, compulsory special needs schools, Sámi schools, upper-secondary schools and upper-secondary schools for pupils with intellectual disability; in other words, the preschools, school-age educare and other educational organisations were excluded. That the schools would be partially closed thereby meant that a small number of pupils were physically in the schools, even if most were attending remotely. With the amendment, several provisions in the ordinance were adapted to this definition (*partially* closed school). For example, there was the possibility to distribute the academic year differently over the academic year and (for compulsory schools and equivalent

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<sup>357</sup> Folkhälsomyndigheten.se (2022). *Upphävda föreskrifter och allmänna råd* [Repealed regulations and general guidelines].

<sup>358</sup> The Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:12).

<sup>359</sup> Ordinance (2020:188) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.



school forms) distribute teaching hours differently from what was shown in the schedule if the school was partially closed. The amendments came into force on 6 April 2020.<sup>360</sup>

On **3 April**, the Government decided to amend Ordinance (2020:201) on study support during the spread of certain infections. This amendment meant that a student could continue to receive student finance for the period for which it was granted, even if the student could not carry out their studies because measures were introduced to prevent the spread of COVID-19. The ordinance applied to students with study assistance, student finance and study start support, which included students in the upper-secondary schools and adult education at upper-secondary level (Komvux) as well as unemployed students who were granted study start support to enrol in compulsory or upper-secondary education. The Government decided that the ordinance would come into force on 7 April, but also apply retroactively starting on 1 January 2020.<sup>361</sup>

On **9 April**, the Government amended the Ordinance on study support during the spread of certain infections. One of the amendments concerned stipulations on the income review that is conducted to determine a student's right to student finance in 2020. The income review is performed because students can earn a maximum amount of money through work and still retain their right to student finance. The amendment stipulates that no income examination is to be conducted, which means that students can work and earn more than what was normally permitted and still retain their right to student finance. The amendment thus meant that the so-called earned income allowance was removed. The provisions came into force on 13 April 2020 and applied until 31 December 2020, but were applied retroactively from 1 January 2020.<sup>362</sup> The temporary elimination of the earned income allowance would later be repeatedly extended and apply in its entirety until 1 April 2022.<sup>363</sup>

On **21 April**, the Public Health Agency published a report on how school closures in Sweden affect workplace absences for healthcare staff in a pandemic. The findings showed that the regions would have a very difficult time carrying out their missions during a pandemic, as parts of the healthcare staff would need to stay home to take care of their children in the event of a school closure. Under relatively favourable conditions, absences among doctors, nurses, assistant nurses and others could total 43,000, or just over one-tenth of the workforce.

On **24 April**, the Government decided on an amendment to continue to make it possible to issue final school grades at the upper-secondary level within adult education at upper-secondary level (Komvux) because in many municipalities it was not possible to issue final school grades as subject tests were cancelled due to

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<sup>360</sup> Ordinance (2020:188) amending Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections, and Regeringen.se (2020). *Amendment of Ordinance (2020:115) on education in certain forms of schooling in the education system during the spread of certain infections.*

<sup>361</sup> Ordinance (2020:236) amending Ordinance (2020:201) on study support during the spread of certain infections.

<sup>362</sup> Ordinance explanation (Fm 2020:5) for Ordinance amending Ordinance (2020:201) on study support during the spread of certain infections.

<sup>363</sup> CSN.se (2022).

the pandemic. For persons aiming for a final school grade for entry requirements for higher education or higher vocational education, this possibility was extended until 1 July 2021.<sup>364</sup>

Yet another amendment that was decided on **24 April** was that some of the stipulations in the Ordinance on education in the school and other pedagogical activities during the spread of certain infections could also be applied for schools that were kept open, if this was needed because teachers or pupils had been absent because they were following a recommendation from the Public Health Agency regarding COVID-19. The organisers for an open school could teach in different way and at different times than what is stated in the Education Act even when the school premises were open for pupils. For remote teaching, it should also be considered whether it is appropriate with regard to the pupil's age and other conditions. The amendments came into force on 27 April 2020.<sup>365</sup>

On **28 April**, the Public Health Agency published information on its website concerning the spring semester's graduation celebrations. Among other things, the Public Health Agency deemed that the awarding of grades and other class- or group-delimited graduation ceremonies could be carried out, but only for the pupils graduating upper-secondary school in the 2020 spring semester. The Public Health Agency advised against large common gatherings and stated that crowding in the corridors and other premises used should be avoided. Larger ceremonies, gatherings or parades for the entire school should not be held, and school classes could not gather on truck beds (a traditional Swedish graduation celebration), the Public Health Agency wrote. Private graduation parties at home were also considered inappropriate.<sup>366</sup>

On **30 April**, the Government tasked the National Agency for Education to conduct supporting efforts for the education system due to the COVID-19 pandemic, with the aim of easing the work situation. The National Agency for Education would support organisers, education providers, principals, teachers and other school staff in their work to produce learning examples of how this work could be organised. To support this, the National Agency for Education should use the new provisions, regulations and recommendations that came from the Government and the Public Health Agency. The National Agency for Education would support the facilitation of work experience programmes and placements as well as subject tests and grading. The National Agency for Education would also develop support for newly arrived pupils, pupils in the introductory programmes or pupils in need of special support interventions, and that they would develop support to address children's and pupils' concerns and anxiety. Organisers, principals and education providers could receive support in how the organisation could be organised and support should also be developed for the pupil health

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<sup>364</sup> Regeringen.se (2020). *Möjligheten att utfärda slutbetyg i komvux förlängs ett år* [Opportunity to issue final school grades in Komvux extended one year].

<sup>365</sup> Ordinance (2020:257) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections, explanation (Fm 2020:06) of Ordinance amending Ordinance (2020:201) on study support during the spread of certain infections.

<sup>366</sup> Folkhälsomyndigheten.se (2020). *Studentfirandet blir småskaligt i år* [Small-scale graduation celebrations this year].

services. On 7 May, the National Agency for Education published websites in this area, and these have been subsequently updated as needed.<sup>367</sup>

## May

On **15 May**, the Swedish Transport Agency, on request of the Public Health Agency, decided on a temporary change to the provisions concerning celebrations on graduation floats, carnival processions or similar. This meant, among other things, that graduation motorcades were not allowed this year. The decision applied from 31 December 2020.

As a consequence of the first two months of the pandemic, it became more difficult for some pupils to reach the goals. There were thus compulsory school pupils at risk of not achieving the entry requirements to the upper-secondary school's national programmes and upper-secondary pupils at risk of leaving upper secondary without degrees. On **16 May**, the Government decided that SEK 120 million would be earmarked for organisers to offer holiday school to pupils who did not reach or were at risk of not reaching the knowledge requirements needed for a grade of E.<sup>368</sup>

On **29 May**, the Public Health Agency decided that the recommendation on remote teaching would be repealed on 15 June 2020. The reason for the decision was that children and young people were not assessed to be driving the spread of COVID-19 and that school staff were not falling ill with the disease more often than other professional groups, which emerged in the first version of the Public Health Agency's knowledge compilation on COVID-19 for children and young people.<sup>369</sup> For the higher education institutions, universities, adult education at upper-secondary level (Komvux), higher vocational education programmes and other education aimed at adults, the same general guidelines and recommendations applied as for the rest of society.<sup>370</sup>

## June

On **5 June**, the Government decided on an amendment to the Upper-Secondary Ordinance so that some pupils in the introductory programmes could do subject tests in compulsory school subjects that were part of their individual study plans while they were enrolled in the upper-secondary schools. This applied only to pupils who had F grades or who did not have grades in certain compulsory school

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<sup>367</sup> Ordinance (2020:257) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections and Ministry of Education and Research (2020). *Uppdrag att genomföra stödande insatser med anledning av covid-19* [Assignment to implement supporting efforts due to COVID-19].

<sup>368</sup> Regeringen.se (2020). *120 miljoner kronor ska ge fler möjlighet att delta i lovskola* [SEK 120 million will give more pupils the chance to go to holiday school].

<sup>369</sup> Public Health Agency of Sweden (2020). *Covid-19 hos barn och unga, En kunskapssammanställning version 1* [COVID-19 among children and young people. A knowledge compilation, Version 1].

<sup>370</sup> Folkhälsomyndigheten.se (2020). *Gymnasieskolorna kan öppna till höstterminen* [Upper-secondary schools can open for autumn semester] and Regeringen.se (2020). *Kravet på distansundervisning lättas upp* [Requirement for remote teaching eased].

subjects for which subject tests could be taken, and the subject test was free of charge. The amendment took effect on 15 June.<sup>371</sup>

On **9 June**, the Public Health Agency decided on changes in the Public Health Agency's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc.<sup>372</sup> In addition to what applies for sports associations (which is not summarised here), changes were made in the general guidelines for personal responsibility and for workplaces. To prevent the spread of COVID-19 at workplaces, employers should, where possible, ensure that employees keep their distance from each other, are able to wash their hands regularly or use hand sanitiser, work from home, and be able to adjust their working hours to avoid rush hour traffic. Among other things, the personal responsibility concerned continuing to be careful with hand hygiene, keeping distance from other people, using alternative means of transport, avoiding public transit, and refraining from participating in larger social situations. The changes came into force on 13 June.<sup>373</sup>

On **12 June**, the Government changed the government grant terms to make it easier to offer pupils holiday school, which followed on the strengthening of the grants that was done on 16 May. As a consequence of the pandemic, sick absences among teachers are high (as they are home with symptoms), while many also have a stressful work situation. The Government therefore made it possible for people who are not authorised and licensed to conduct teaching in the holiday school, provided they have the education or experience to make them suitable. The change also meant that the government grant could be used to give pupils who have left upper-secondary school without receiving a degree the opportunity to attend holiday school. The temporary change applied between 25 June 2020 and 31 August 2021.<sup>374</sup>

On **18 June**, the Government tasked, among others, the National Agency for Education, with following up on the consequences of the pandemic in the area of education. The assignment would be carried out in consultation with the Swedish Schools Inspectorate, the National Agency for Special Needs Education and Schools and other relevant actors, with an interim report to be provided no later than 14 August 2020 and the final report on 21 May 2021.<sup>375</sup>

## July

On **1 July**, the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:9) for preventing the spread of COVID-19 at

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<sup>371</sup> Regeringen.se (2020). *Prövning av grundskoleämnena i gymnasieskolan möjliggörs* [Testing of compulsory school subjects in upper-secondary schools made possible].

<sup>372</sup> Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:31).

<sup>373</sup> Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:31).

<sup>374</sup> Regeringen.se (2020). *Ändrade statsbidragsvillkor ska göra det enklare att erbjuda lovskola* [Changed government grant terms will make it easier to offer holiday school].

<sup>375</sup> Regeringen.se (2020). *Pandemins konsekvenser inom utbildningsområdet ska följas upp* [Pandemic's consequences in education to be followed up].

restaurants, cafés, etc. ceased to apply.<sup>376</sup> The regulations had included, among other things, advice for school cafeterias.<sup>377</sup> On the same day, Act (2020:526) on temporary infection control measures at restaurants and other businesses serving food came into effect, which did not apply to school cafeterias or staff lunchrooms.<sup>378</sup>

Before the autumn semester's resumed face-to-face instruction in the upper-secondary schools, with fear of increased crowding in public transit as a result, the Government decided on **16 July** to amend the Ordinance on education in the school and other pedagogical activities during the spread of certain infections<sup>379</sup>, which enabled combining teaching on site in the schools with remote teaching. If the organiser has attempted to adapt the schedule to avoid pupils having to travel during rush hour, but has not succeeded, crowding in public transit can be prevented by combining face-to-face instruction with some remote teaching. The possibility for this applied if it was justified based on regulations, general guidelines or recommendations from the Public Health Agency concerning public transit. The amendment came into force on 10 August 2020.<sup>380</sup>

## August

On **31 August**, the Public Health Agency published a recommendation on PCR testing for children and young people (children in the preschool class up to young people of upper-secondary school age). The aim was to enable pupils to more quickly return to school if they had symptoms which could be due to COVID-19 but the test results were negative and they were well enough to be in school. According to the Public Health Agency, children and young people feel good being in school and negative test results could enable them to return to school despite mild symptoms. Children in preschool, however, were recommended to stay at home when they were sick, without testing.<sup>381</sup>

## September

On **11 September**, the Government proposed updated budget investments in the area of education to address the challenges brought by the COVID-19 pandemic. Among the changes were, in addition to the SEK 120 million earmarked for investments in holiday school, changes in the requirement on municipalities in terms of regional vocational adult school. It was previously required that the municipalities themselves financed as many education spots in regional vocational adult schools as the state itself financed, but this requirement was removed for 2020. Instead, the state financed all spots in vocational adult

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<sup>376</sup> Regulations on the repeal of Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:9) for preventing the spread of COVID-19 at restaurants, cafés, etc. (HSLF-FS 2020:36).

<sup>377</sup> Ibid.

<sup>378</sup> Government bill. 2019/20:172.

<sup>379</sup> Adjustment of Section 11a and introduction of Section 11b through Ordinance (2020:732) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>380</sup> Regeringen.se (2020). *Distansstudier ska minska trängsel i kollektivtrafiken* [Distance education to reduce crowding in public transit].

<sup>381</sup> Public Health Agency of Sweden (2020). *Barn och unga med symtom på covid-19 rekommenderas PCR-testning för snabbare återgång till skolan* [Children and young people with COVID-19 symptoms recommended to PCR test for faster return to school].

education, plus an additional 1,500 spots. This was done by increasing the direct government funding for regional vocational adult schools by SEK 675 million in 2020. An additional SEK 25 million was added for the new spots. The Government also proposed additional funding so that 10,000 persons could be enrolled in programmes focused on health and social care.<sup>382</sup> The Riksdag decided in accordance with the Government's proposal.

## October

On **13 October**, the Public Health Agency decided to extend the period of validity for the regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. from 31 December 2020 to 30 June 2021. The general guidelines for people over age 70 or other risk groups was changed, who instead of avoiding *social* contact, were recommended to avoid *physical* contact. People who were infected or suspected of being infected with COVID-19 were also recommended to avoid physical contact. One major change was that the Public Health Agency was given the opportunity to issue regional general guidelines in the event of local outbreaks of COVID-19. Previously, the Public Health Agency's advice was of a national nature, but a strategy was now adopted that would be more precise, with recommendations that would apply for parts of the country. The explanation for this strategy was that the Public Health Agency wanted to avoid certain regions having restrictions that were considered to not be proportional to the spread of infection in the area. Going forward, the recommendations could apply to a geographically limited area, such as a country or region, and not only nationally. Such decisions were to be made after consultation with the regional infection control physicians. The local general guidelines could concern personal responsibility, organisations and workplaces. The amendments came into force on 19 October 2020.<sup>383</sup>

The Public Health Agency subsequently decided in October and November on local general guidelines for all of the country's regions. These could entail, for example, that individuals were advised to not take public transit or have physical contact with persons outside their own households, and that workplaces gave employees the conditions to work from home and postpone in-person meetings. In December, the possibility of local variations was removed and replaced with regular general guidelines.

On **21 October**, the Public Health Agency once again decided on an amendment to the regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc.<sup>384</sup> The general guidelines aimed at people over age 70 and other risk groups ceased to apply when the amendment came into force on 22 October 2020.<sup>385</sup>

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<sup>382</sup> Regeringen.se (2020). *Satsningar inom utbildningsområdet* [Investments in the area of education].

<sup>383</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:50).

<sup>384</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:52).

<sup>385</sup> *Ibid.*

## November

On **3 November**, the Public Health Agency published an information campaign ‘Allt är inte som vanligt’ [Everything is not as usual] directed at children, young people and adults in all forms of education from school year 7 upwards. The aim was to provide information on what everyone needed to do to reduce the spread of COVID-19 and to provide a reminder that the pandemic was still going on. The Public Health Agency had received signals from the regional infection control units that the inclination to follow the general guidelines aimed at reducing the spread of infection had decreased among young people and young adults, while the spread of infection had increased during the autumn. At the same time, principals were encouraged to remind pupils and staff to follow the general guidelines and recommendations and to encourage reflection on what this meant concretely in the pupils’ daily lives.<sup>386</sup>

On **12 November**, the Public Health Agency published results from a knowledge compilation on COVID-19 among children and young people. A relatively small proportion of those who had been sick with COVID-19 were children. The infectiousness between children was lower than between adults. The infectiousness between teenagers was somewhat higher than between children, but likely lower than between adults. At the same time, it was important, according to the Public Health Agency, that the schools continued to remain open, as school closures have had a negative impact on the mental and physical health and learning of the pupils.<sup>387</sup>

On **19 November**, the Government extended, through an amendment to the Ordinance on education in the school and other pedagogical activities during the spread of certain infections<sup>388</sup>, the opportunity for remote teaching in the upper-secondary schools until 23 November. An organiser that kept the upper-secondary school open could, among other things, apply the ordinance’s provisions on teaching hours (Section 5) and remote teaching (Section 7) if the number of pupils who were present in the school unit’s premises at the same time needed to be limited so that the organiser could follow the regulations, general guidelines or recommendations from the Public Health Agency concerning the disease COVID-19.

In connection with the legal amendment, the Government emphasised that organisers, before remote teaching was undertaken, must have established that other, ordinary, measures were not sufficient. These measures could include adapting scheduling to prevent crowding, extending the school day or conducting teaching on evenings or weekends. The organisation also needed to be organised

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<sup>386</sup> Folkhälsomyndigheten.se (2020). *Allt är inte som vanligt – information till skolor om vikten av anpassning i pandemin* [Everything is not as usual – Information to schools on the importance of adaptation in the pandemic].

<sup>387</sup> Folkhälsomyndigheten.se (2020). *Lärare har ingen högre risk för att smittas av covid-19* [Teachers at no higher risk of being infected with COVID-19].

<sup>388</sup> The provision Section 11c was introduced through Ordinance (2020:957) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

so that pupils' and teachers' working situations were reasonable, and consideration also needed to be taken to pupils' different needs and conditions.<sup>389</sup>

## December

Starting on **1 December**, the Public Health Agency recommended, in its guidelines for COVID-19 infection tracking, that children in preschool and compulsory school should also stay home if anyone in the family were at home because they were sick with COVID-19, even if the child was symptom-free. This recommendation had previously applied to older pupils in, for example, upper-secondary school. The purpose of the change was to counteract worry in the schools and create a peaceful working environment.<sup>390</sup>

On **3 December**, the Public Health Agency recommended that upper-secondary schools should partially close and instead conduct their teaching as remote teaching, between 7 December 2020 and 6 January 2021. Other school forms were exempted from the recommendation. Upper-secondary pupils who needed to be in school for practical course components that could not be postponed or to take national tests or other exams that could not be performed remotely were also exempted. The same applied for pupils in the introductory programmes and pupils who are otherwise vulnerable to remote teaching.<sup>391</sup>

On **8 December**, the Public Health Agency decided on several amendments to the regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc.<sup>392</sup> The Agency's ability to decide on regional general guidelines was removed. Individuals were advised, among other things, to limit new close contacts, work from home as often as possible, and avoid public indoor environments if there were crowds there. All organisations, including workplaces and adult education, must ensure under the regulations that they took suitable measures to prevent the spread of COVID-19. According to the general guidelines, this could be done by minimising the number of people at the same time, especially in crowded premises, or by offering digital alternatives. All workplaces were advised to make it possible for employees to keep their distance from each other.

In the changed general guidelines, a separate recommendation came for the first time for education for adults, for example adult education at upper-secondary level (Komvux). The advice was, in addition to the advice that applied to workplaces, to carry out remote education where possible and suitable according

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<sup>389</sup> Regeringen.se (2020). *Gymnasieskolor får möjlighet att vidta fler åtgärder för att undvika trängsel och minska smittspridning* [Upper-secondary schools get opportunity to take further measures to avoid crowding and reduce spread of infection].

<sup>390</sup> Folkhälsomyndigheten.se (2020). *Symtomfria barn bör stanna hemma om någon i familjen har covid-19* [Symptom-free children should stay home if anyone in the family has COVID-19].

<sup>391</sup> Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools].

<sup>392</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:80).



to the pupils/students' needs. The amendments came into force on 14 December 2020.<sup>393,394</sup>

On **15 December**, the National Agency for Education announced that the national tests would be cancelled in spring 2021. The background to the decision was that carrying out the tests required that the pupils had received equitable teaching and that the tests could be carried out in an equitable way, which could not be guaranteed due to the COVID-19 pandemic. The tests for pupils in Year 3 were included in the guarantee for early support interventions and would be carried out as usual in spring 2021, with certain adaptations.<sup>395</sup>

On **21 December**, the Government announced its proposal to increase state support to the education system by SEK 1 billion, to contribute to the municipalities having good conditions to ensure education for children and pupils despite the COVID-19 pandemic. The so-called 'School Billion' was distributed proportionally to the municipalities by the National Agency for Education in order to be used for efforts throughout the entire education system.<sup>396</sup>

On **22 December**, the Public Health Agency amended its regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. for organisations.<sup>397</sup> According to the adjusted general guidelines, an organisation, as a measure to reduce the spread of infection, could decide on a maximum number of people that could be in the organisation's premises at the same time. The amendments came into force on the following day, 23 December 2020.<sup>398</sup>

On **28 December**, the Public Health Agency decided to extend the recommendation for the upper-secondary schools to conduct teaching remotely. The previous recommendation should have expired on 6 January 2021 but was extended until 24 January 2021. Exemptions continued to apply for other school forms, practical elements, examinations that could not be done remotely, pupils in introductory programmes and pupils who otherwise were vulnerable to remote teaching.<sup>399 400</sup>

## Year 2021

### January

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<sup>393</sup> Other recommendations, regarding for example commercial trade, public transit and clubs/associations, were also decided in the general guidelines but are not summarised here.

<sup>394</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:80).

<sup>395</sup> Swedish National Agency for Education (2020). *Vårens nationella prov ställs in* [This spring's national tests cancelled].

<sup>396</sup> Regeringen.se (2020). *Över en miljard extra till skolan nästa år* [Over one billion extra to schools next year].

<sup>397</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2020:90).

<sup>398</sup> Ibid.

<sup>399</sup> Regeringen.se (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools extended].

<sup>400</sup> Public Health Agency of Sweden (2020). *Rekommendation om delvis stängning och övergång till fjärr- eller distansundervisning i gymnasieskolan* [Recommendation on partial closure and transition to remote teaching in the upper-secondary schools].

On **7 January**, the Public Health Agency published a number of preventative measures that lower-secondary schools could take. This concerned, for example, ensuring opportunities for good hand hygiene, giving teachers the possibility to perform tasks and participate in meetings digitally from home, and improving the opportunities to maintain physical distance indoors.<sup>401</sup>

On **8 January**, the Government made a new amendment to the Ordinance on education in the school and other pedagogical activities during the spread of certain infections that concerned the lower-secondary schools (years 7–9 of the compulsory schools)<sup>402</sup>. Through this amendment, the organisers for the lower-secondary schools could also decide on changes in teaching hours and the arrangement of the education, as well as switch to remote teaching in certain circumstances. This could be done if it was necessary for the pupils and teachers to be able to follow the Public Health Agency's regulations, recommendations and general guidelines regarding COVID-19 and public transit and other public means of transport, or if the number of pupils present at the same time in the school unit's premises needed to be limited for the organiser to be able to follow the Public Health Agency's regulations, recommendations and general guidelines regarding COVID-19.

As was the case for the upper-secondary schools, a prerequisite for being able to take advantage of these opportunities at all was that ordinary measures, such as schedule changes, were not sufficient, that it was suitable based on the pupil's age, maturity, conditions and needs, and that the pupils were given access to the learning tools needed.

The working situation must also be reasonable for both teachers and pupils, which is the responsibility of the headteacher and organiser to ensure. The pupils also continued to have the right to school meals, even if they were not physically on school premises.

The amendments applied starting on 11 January 2021.<sup>403</sup>

On **20 January**, the Public Health Agency announced that the earlier recommendation to conduct all upper-secondary school teaching remotely was replaced with a new recommendation. For every pupil, it was recommended that at least 20 per cent of the teaching would be conducted as face-to-face instruction, and no more than 80 per cent would be conducted as remote teaching. The recommendation applied from 25 January to 1 April 2021.<sup>404</sup>

On **21 January**, the Government announced a number of extended and new measures to slow the spread of infection. Among these, municipalities and regions

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<sup>401</sup> Folkhälsomyndigheten.se (2021). *Undvik smittspridning i högstadieskolorna* [Avoid spread of infection in the lower-secondary schools].

<sup>402</sup> The provisions Sections 11b and 11c were adjusted through Ordinance (2021:10) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.

<sup>403</sup> Regeringen.se (2021). *Högstadieskolor får möjlighet till fjärr- eller distansundervisning för att undvika trängsel och minska smittspridningen* [Lower-secondary schools get opportunity for remote teaching to avoid crowding and reduce spread of infection].

<sup>404</sup> Folkhälsomyndigheten.se (2021). *Gradvis återgång till närundervisning på gymnasiet* [Gradual return to face-to-face instruction in upper-secondary schools].

were encouraged to continue to keep activities that the public had access to, and which were not necessary, closed until 7 February 2021.<sup>405</sup>

## February

New course syllabi for compulsory schools and corresponding school forms had been previously decided to come into effect on 1 July 2021. However, since the COVID-19 pandemic put a great strain on school staff, the Government decided on **4 February** to postpone implementation so as to not increase the staff's workload further. The course syllabi instead began to apply starting in the 2022 autumn semester. The decision did not, however, apply to the new course syllabi in mathematics, English and modern languages in effect for the upper-secondary schools and adult education at upper-secondary level (Komvux). These were to come into effect in the 2021 autumn and 2022 spring semester, as planned.<sup>406</sup>

On **19 February**, the Government decided to extend the period of validity for the Ordinance on education in the school and other pedagogical activities during the spread of certain infections until 31 July 2022. The purpose of this was to give the schools better conditions to plan their activities over the long term and to adapt them so that pupils could make up, for example, loss of knowledge. Originally, the ordinance was to have applied through 30 June 2021.<sup>407</sup>

## March

On **11 March**, the Government and the Swedish Association of Local Authorities and Regions (SALAR) signed an agreement on the project Uppdrag fullföljd utbildning [Operation completed education]. The objective was to increase the proportion of pupils who completed their compulsory and upper-secondary education, which had become even more important as the COVID-19 pandemic had led to economic crisis and increased unemployment.<sup>408</sup>

On **18 March**, the Government decided on a Council of Legislation referral with a proposal regarding upper-secondary school regulations for young people applying for permanent residency, due to the COVID-19 pandemic. The applicant would get twelve instead of six months to establish themselves on the labour market after the completed education. When the requirement for self-support was assessed, student finance for half-time studies could be taken into account and vocational introduction employment could also provide grounds for the applicant to receive permanent residency. The amendments were proposed to enter into force on 20 July 2021 and apply until the end of June 2023.<sup>409</sup>

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<sup>405</sup> Regeringen.se (2021). *Förlängningar av nationella restriktioner* [Extension of national restrictions].

<sup>406</sup> Regeringen.se (2021). *De nya kursplanerna börjar gälla först inför höstterminen 2022* [The new course syllabi to come into effect in 2022 autumn semester].

<sup>407</sup> Ordinance (2021:128) on continued validity of Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections

<sup>408</sup> Regeringen.se (2021). *Överenskommelse för att fler ska klara gymnasiet* [Agreement for more to complete upper secondary].

<sup>409</sup> Swedish Government (2021). *Kompletterande regler för uppehållstillstånd vid gymnasiestudier* [Supplementary rules for residence permits for upper-secondary studies]. Council on Legislation referral.

On **25 March**, the Public Health Agency announced that the recommendation for upper-secondary schools to conduct teaching remotely, which according to the previous decision would cease to apply on 1 April, would not be extended. Because this coincided with Easter break, it meant in reality that face-to-face instruction, for those who followed this recommendation, must begin on 6 or 12 April. The schools thereby had time to adjust activities to once again be carried out in the school. The justification for the change was that remote teaching had significant disadvantages for the pupils, because it was more difficult for them to absorb the teaching and it had an adverse effect on their mental health. The Public Health Agency argued that the COVID-19 pandemic and the measures to combat it were affecting young people in an important phase of their lives. The Ordinance on education in the school and other pedagogical activities during the spread of certain infections continued to apply in the upper- and lower-secondary schools, however, which made it possible for organisers to continue to conduct teaching remotely under certain circumstances.<sup>410</sup>

On **29 March**, the Government tasked the National Agency for Education with implementing efforts to handle the consequences of the COVID-19 pandemic in the education system in both the short and long terms. The assignment already held by the National Agency for Education, to follow up on the COVID-19 pandemic's consequences and to implement supporting efforts, was supplemented with an assignment for additional support to organisers and education providers. The support that the National Agency for Education was to develop was to make it easier for the organisers to identify what knowledge the pupils had not absorbed during the COVID-19 pandemic. Apart from this, the National Agency for Education was to chart the loss of knowledge by conducting a national survey of the pupils' loss of knowledge. The National Agency for Education was to also disseminate good examples of how schools had handled the consequences that arose in the education. The assignment was to be reported on 17 December 2021, 3 June 2022 and 16 December 2022.<sup>411</sup>

## April

On **2 April**, the Government extended the possibility to issue final grades in adult education at upper-secondary level (Komvux). For Komvux at the upper-secondary level, the final grades are being replaced by the pupils instead receiving an upper-secondary qualification, but for pupils with older grades, it has often been more convenient to get final school grades. Because subject tests in Komvux have been limited due to remote teaching during the COVID-19 pandemic, which has prevented many pupils from receiving final grades, the transition period was

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<sup>410</sup> Folkhälsomyndigheten.se (2021). *Ingen förlängning av rekommendation om fjärr- och distansundervisning på gymnasiet* [No extension of recommendation for remote teaching in upper-secondary schools].

<sup>411</sup> Regeringen.se (2021). *Skolverket ska ge stöd för att hantera elevers försämrade möjligheter till kunskapsutveckling under pandemin*. [The National Agency for Education to provide support for handling the pupils' reduced opportunities for knowledge development during the pandemic].

extended and both forms of degrees remain possible. The rule change applies until 1 July 2025.<sup>412</sup>

The Government proposed in the spring budget, which was submitted to the Riksdag on **15 April** that an additional SEK 350 million be allocated to the education system to manage the consequences of the COVID-19 pandemic. The background was that the periods with remote teaching have negatively affected pupils and teaching. Pupils in need of support, as well as pupils who have not achieved what they could and wanted to, have been particularly adversely impacted. The distribution of the funds took place in the same way as the so-called ‘School Billion’, in the aim to give organisers greater opportunities to ensure that children and pupils get the education they were unable to acquire during the COVID-19 pandemic and to carry out other support efforts. 100 million of the SEK 350 million would finance types of support such as holiday school.<sup>413</sup>

In the spring amendment budget, the Government also proposed strategies for upper-secondary pupils who completed their upper-secondary education in 2020 and 2021 and who will to a greater extent be able to take subject tests to improve their grades, due to the fees for subject tests being lowered. Investments were made in regional vocational adult education, among other things by the state funding all spots in the education. The investments were made in particular to raise the number of pupils studying a combination of vocational courses and SFI courses at Komvux, part of the regional vocational adult education, to shorten down the establishment period for foreign-born and newly arrived pupils.<sup>414</sup>

On **15 April**, the Public Health Agency published a report on the current state of knowledge on the spread of COVID-19 infection among children and young people. Very few children and young people infected by COVID-19 become seriously ill or die, according to the report. It happens that the virus is spread in the school environment, but this reflects the general spread of infection in society. The Public Health Agency’s guidance for infection tracking in the schools is updated shortly thereafter. The background was that the spread of infection in the school environment follows the spread of infection in society at large. With the aim of preventing outbreaks and more quickly stopping the spread of infection, testing of children and young people is recommended even for those who are symptom-free, if they have had close contact with a confirmed case of COVID-19. However, the children/young people could continue going to school while waiting for the test results. If a family member had COVID-19, however, they should stay home.<sup>415</sup>

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<sup>412</sup> Regeringen.se (2021). *Möjligheten att utfärda slutbetyg i komvux förlängs ett år* [Opportunity to issue final school grades in Komvux extended additional four years].

<sup>413</sup> Regeringen.se (2021). *Ytterligare 350 miljoner till skolan för att hantera pandemin* [An additional 350 million to the schools to deal with the pandemic].

<sup>414</sup> Regeringen.se (2021). *18 miljarder till åtgärder för jobb och omställning i spåren av pandemin* [18 billion to measures for jobs and adjustments in the wake of the pandemic].

<sup>415</sup> Folkhälsomyndigheten.se (2021). *Smittspridningen i skolan återspeglar ökningen av covid-19 i samhället* [Spread of infection in the schools reflects rise of COVID-19 in society].

On **19 April**, the Public Health Agency published guidance for the use of antigen tests for COVID-19, including for school environments. Screening with antigen tests could, according to the Agency, be targeted for use in certain practical educational elements in higher school years or vocational schools. However, there was no comprehensive evaluation of whether regular screening of schoolchildren limits the spread of infection and reduces illness absences in the schools. The Public Health Agency's assessment was that regular screening of school pupils could be a possible complement in the future to other protective measures in the schools. The benefit was so far uncertain, and at the present time, the risks outweigh the potential benefits that screening of school pupils might have.<sup>416</sup>

On **22 April**, the Public Health Agency extended the general guidelines and the planned gradual adaptation of measures was postponed until 17 May.<sup>417</sup>

On **27 April**, the Public Health Agency assessed that the awarding of grades and other ceremonies connected to upper-secondary school graduations could be possible if they were arranged in such a way that the risk of spreading COVID-19 was minimised.<sup>418</sup>

On **29 April**, the Public Health Agency announced that it supported the Swedish Paediatric Society's recommendations on COVID-19 vaccines for limited groups of patients aged 16–17.<sup>419</sup>

## May

During the COVID-19 pandemic, it had become easier for organisers to offer holiday school for upper-secondary pupils through changes in the government grant terms. On **20 May**, the Government decided to extend the temporary terms. It was, for example, still possible for pupils who had completed their upper-secondary education without a degree to participate in teaching arranged as holiday school. The relaxed terms would apply until 22 September 2022.

The Public Health Agency announced on **27 May** that the general guidelines that adult education should offer remote teaching would cease to apply on 1 June. According to the change, adult students could, after three semesters of a lot of remote teaching, return to teaching in the schools. This was part of the first of five steps in the lifting of restrictions and recommendations due to the COVID-19 pandemic.<sup>420</sup>

## June

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<sup>416</sup> Folkhälsomyndigheten.se (2021). *Vägledningen om antigenester för covid-19 har uppdaterats* [Guidelines on antigen tests for COVID-19 have been updated].

<sup>417</sup> Folkhälsomyndigheten.se (2021). *Smittspridningen kräver förlängda restriktioner* [Spread of infection requires extended restrictions].

<sup>418</sup> Folkhälsomyndigheten.se (2021). *Småskaligt studentfirande* [Small-scale graduation celebrations].

<sup>419</sup> Folkhälsomyndigheten.se (2021). *Vaccination mot covid-19 för särskilda grupper från 16 års ålder* [Vaccination against COVID-19 offered for special groups from age 16].

<sup>420</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:47) and Folkhälsomyndigheten.se (2021). *Vuxna kan återgå till undervisning på plats från den 1 juni* [Adults can return to in-school teaching from 1 June].

On **15 June**, the Government and the Public Health Agency held a press conference to inform organisers, school management and school staff that face-to-face instruction on school premises would be the reality during the 2021 autumn semester. At the same time, the organisers and principals needed to have a contingency plan to ensure that remote teaching could be conducted in the event of local infection outbreaks, and it was also announced that a national recommendation could become relevant if the infection situation changed. Remote teaching could still be relevant as an infection control measure to allow pupils with mild symptoms to stay at home. The purpose of the press conference was to give organisers and principals a chance to plan, before the semester started, to conduct face-to-face instruction during the autumn.<sup>421</sup>

On **15 June**, the Public Health Agency also extended the period of validity for the regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc., which originally should have ceased to apply on 30 June 2021, to continue to apply until 30 September 2021.<sup>422</sup>

On **17 June**, the Government's proposal to the spring amendment budget on reducing the fees for subject tests, among other things, became a reality. Instead of SEK 500, the test cost SEK 150, and the reduction applied to one test per course for pupils who had completed their upper-secondary education in 2020 or 2021. The change applied as previously proposed until 31 December 2021.<sup>423</sup>

On **17 June**, a survey commissioned by the Public Health Agency showed that the COVID-19 pandemic and the infection control measures that had been introduced had affected the lives and daily circumstances of schoolchildren in many different ways.<sup>424</sup>

The Public Health Agency recommended on **22 June** that young people aged 16 and 17 would be offered COVID-19 vaccinations.<sup>425</sup>

The proposal that the Government made in the budget bill for 2021, calling for an additional SEK 250 million to be allocated to the education system through the so-called 'School Billion' to handle, among other things, the changed conditions and consequences brought by the COVID-19 pandemic, was adopted on **23 June**. A total of SEK 1.25 billion was allocated to municipal and independent

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<sup>421</sup> Regeringen.se (2021). *Digitala pressträff om skolan med utbildningsministern och Folkhälsomyndigheten* [Digital press conference on schools with the Minister for Education and the Public Health Agency of Sweden] and Folkhälsomyndigheten.se (2021). *Undervisning på plats i skolan för barn och unga från terminsstart i höst* [Teaching on site in the schools for children and young people from autumn semester start].

<sup>422</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:50) and Folkhälsomyndigheten.se (2021). *Allmänna råd om allas ansvar förlängs till 30 september* [General guidelines on everyone's responsibility extended to 30 September].

<sup>423</sup> Regeringen.se (2021). *Sänkt avgift för prövning ska underlätta för gymnasieelever som drabbats av pandemin* [Lowered fee for subject tests will make things easier for upper-secondary pupils impacted by the pandemic].

<sup>424</sup> Folkhälsomyndigheten.se (2021). *Så har skolbarns vardagsliv påverkats under covid-19-pandemin* [How schoolchildren's daily lives have been affected during the COVID-19 pandemic].

<sup>425</sup> Folkhälsomyndigheten.se (2021). *Vaccination mot covid-19 för särskilda grupper från 16 års ålder* [Vaccination against COVID-19 offered for special groups from age 16].

organisations proportionally according to the number of children and young people 6–19 years of age.<sup>426</sup>

After the Riksdag decided on the spring amendment budget for 2021, the Government decided on **23 June** how the investments in education would be realised, which among other things meant that the government grant for combination education would be raised. Combination education means that vocational education in, e.g., health and social care is combined with Swedish for immigrants (SFI). Funds were also allocated to the work with validation of vocational knowledge in adult education at upper-secondary level (Komvux).<sup>427</sup>

On **28 June**, the Public Health Agency announced that the general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. would be relaxed starting on 1 July. However, personal precautions such as keeping distance from others, avoiding new contacts and travelling in a way that reduced the risk of infection still applied. Workplaces were advised to continue to encourage and ensure that employees could work from home when possible and to keep distance.<sup>428</sup>

## July

What was announced at the Government's and Public Health Agency's press conference on 15 June was decided by the Government on **8 July**. This was done by amending the Ordinance on education in the school and other pedagogical activities during the spread of certain infections.<sup>429</sup> The amendments meant that the opportunities for remote teaching in the upper- and lower-secondary schools were reduced.

Starting in the autumn semester, remote teaching could only be conducted in open schools if the Public Health Agency recommended this. In the event of local or regional contagion, the organisers could adapt the measures to the local infection situation and keep an upper- or lower-secondary organisation open. If remote teaching became relevant, after a recommendation by the Public Health Agency, it could be carried out for a smaller proportion of the pupils. Recommending that schools completely or partially closed was still a possibility for the Public Health Agency. It was also possible for the organiser to carry out remote teaching if teachers or pupils needed to be at home to follow regulations, general guidelines or recommendations from the Public Health Agency regarding COVID-19. Certain exemptions from the Education Act were still permitted through the

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<sup>426</sup> Regeringen.se (2021). *125 miljarder till skolan för att hantera pandemins effekter - så fördelas pengarna* [125 billion to schools to manage pandemic's impact – this is how the money is allocated].

<sup>427</sup> Regeringen.se (2021). *Satsningar på utbildning för vuxna ska bekämpa pandemins följder* [Investments in adult education to combat consequences of pandemic].

<sup>428</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2020:12) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:55) and Folkhälsomyndigheten.se (2021) *Satsningar på utbildning för vuxna ska bekämpa pandemins följder*. [Adaptation of infection control measures 1 July].

<sup>429</sup> Changes in Sections 11b and 11c through Ordinance (2021:810) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections.



2021/22 academic year, such as moving teaching elements and extending school days or semesters. The ordinance came into force on 10 August 2021.<sup>430</sup>

## August

Before the start of school and the return to face-to-face instruction, the Public Health Agency on **12 August** recommended a number of infection prevention measures for the preschools, compulsory schools and upper-secondary schools, among others. The recommendations included that large groups of people should be avoided as far as possible, the school's staff should be able to work from home when possible, meetings should be held digitally or outdoors if possible, and opportunities for good hand hygiene should be maintained. The Public Health Agency also wrote that the teaching that could be conducted outdoors could be held outdoors and that the schools should remind pupils, guardians and staff to follow the general guidelines both at school and in their free time. In addition to this, the Public Health Agency said that organisers and regions needed to be able to handle outbreaks and cases of COVID-19 at the schools.<sup>431</sup>

## September

On **7 September**, the Public Health Agency announced that the next step (step 4) in the lifting of the restrictions could be taken on 29 September. This meant, for example, that the general guideline on working from home was lifted on 29 September and that employees could gradually return to work at their workplaces.<sup>432</sup>

On **10 September**, the Government presented the budget bill for 2022, which included the proposal for a new 'School Billion'. The purpose of the School Billion is to help give the municipalities good conditions to ensure that all children and pupils in the school get the education they are entitled to despite the COVID-19 pandemic.<sup>433</sup>

On **15 September**, the Public Health Agency decided on general guidelines for people over age 18 who were not fully vaccinated, for example that they should keep their distance from others.<sup>434</sup>

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<sup>430</sup> Regeringen.se (2021). *Närundervisning i skolan ska vara huvudregeln i höst* [Face-to-face instruction in the schools will be the general rule in autumn].

<sup>431</sup> Folkhälsomyndigheten.se (2021). *Viktigt med förebyggande åtgärder när skolan startar* [Preventative measures important when the schools start up].

<sup>432</sup> Folkhälsomyndigheten.se (2021). *Många restriktioner tas bort den 29 september* [Many restrictions lifted on 29 September].

<sup>433</sup> Regeringen.se (2021). *Regeringen satsar på högre kunskapsresultat, fler utbildade lärare och ökad jämlikhet i skolan - 13 miljarder tillförs* [Government invests in higher knowledge results, more trained teachers and increased equality in the schools - 13 billion injected].

<sup>434</sup> Public Health Agency of Sweden's general guidelines on Chapter 2, Sections 1 and 2 of the Communicable Diseases Act (2004:168) on COVID-19 (HSLF-FS 2021:69).

On **16 September**, the Public Health Agency recommended COVID-19 vaccinations for children from age 12. The regions were encouraged to carry out the vaccination work in collaboration with the schools' pupil health services.<sup>435</sup>

The Public Health Agency decided on **15 September** on new general guidelines that came into force on 29 September, calling, among other things, on individuals to vaccinate and to stay home and avoid contact with other people in the event of suspected COVID-19.<sup>436</sup>

## October

Statistics Sweden (SCB) was tasked on **4 October** by the Government to conduct a study on the extent of remote teaching in the compulsory and upper-secondary schools during the COVID-19 pandemic, which should be presented to the Government no later than 31 March 2022.<sup>437</sup>

On **14 October**, the Public Health Agency recommended that children and adults stay home with symptoms of respiratory tract infections. Unvaccinated persons were recommended as previously to test for COVID-19 and stay home while waiting for results. Persons who were vaccinated, had recently had COVID-19 or were under 6 years of age could, after 1 November, return to work, school or preschool when they felt well. There was no need to retest, even if the symptoms persisted. Both children and adults were recommended to stay at home with symptoms that could be a sign of a respiratory infection.<sup>438</sup>

## November

On **24 November**, everyone who shared a household with a person infected with COVID-19 was recommended to test for COVID-19 and stay home for seven days. This applied to everyone older than children who had started the preschool class, even symptom-free and vaccinated persons. However, it did not apply to those who had a diagnosed case of COVID-19 in the past six months.<sup>439</sup>

## December

On **7 December**, the Public Health Agency decided on new recommendations to slow the spread of COVID-19, which had begun to increase again. The Public Health Agency emphasised that adults must take a greater responsibility to prevent the spread of infection so that children's and young people's schooling

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<sup>435</sup> Folkhälsomyndigheten.se (2021). *Allmän vaccination mot covid-19 från 12 år* [General vaccination against COVID-19 from age 12] and Folkhälsomyndigheten.se (2021). *Barn 12 till 15 år kan få vaccination mot covid-19 från oktober* [Children 12 to 15 years old can be vaccinated against COVID-19 starting in October].

<sup>436</sup> Public Health Agency of Sweden's general guidelines on Chapter 2, Sections 1 and 2 of the Communicable Diseases Act (2004:168) on COVID-19 (HSLF-FS 2021:69) and Folkhälsomyndigheten.se (2021). *Det här gäller kring covid-19 från 29 september* [This applies for COVID-19 from 29 September].

<sup>437</sup> Regeringen.se (2021). *SCB gör studie om distansundervisningen under pandemin* [Statistics Sweden conducts study on remote teaching during the pandemic].

<sup>438</sup> Public Health Agency of Sweden (2022). *När hände vad under pandemin?* [What happened when during the pandemic?]

<sup>439</sup> Folkhälsomyndigheten.se (2021). *Förhållningsregler till den som bor med en person som har covid-19* [Governing rules for people living with someone who has COVID-19].

and daily lives would be affected as little as possible. Adult students were also highlighted as vulnerable to changes in their education. Teaching elements in the schools and adult education were not included in the recommendation to work from home. The new recommendations applied from 8 December 2021 until 31 January 2022.<sup>440</sup>

On **21 December**, the Public Health Agency decided on new regulations and general guidelines targeted at individuals and organisations. Among other things, everyone who could work from home was advised to do so when the work so allowed. All organisations were instructed to ensure that they took appropriate measures to prevent the spread of COVID-19. The new regulations and general guidelines began to apply on 23 December 2021.<sup>441</sup> In adult education, the Public Health Agency recommended infection control measures to avoid crowding and large gatherings.<sup>442</sup>

## Year 2022

### January

On **7 January**, the Public Health Agency's earlier assessment that face-to-face instruction should be the main rule for the compulsory school forms such as the primary and lower-secondary schools, but also for the upper-secondary and upper-secondary schools for pupils with intellectual disability, remained during the 2022 spring semester. However, the Public Health Agency once again emphasised the importance of the organisations enabling face-to-face instruction through various adaptations in the school. If anyone in a child's or young person's household was, or had recently been, sick with COVID-19, the child or young person should test for the disease and stay home for seven days. Children and young people should also stay home when they had symptoms that could be due to COVID-19, and test. The organisers still needed to have contingency plans for handling cases and outbreaks of COVID-19 in the school, and enable school staff to follow the general guidelines such as keeping distance and working from home when possible.<sup>443</sup>

On **10 January**, the Public Health Agency adjusted its regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. All adults were advised, among other things, to limit the number of close contacts

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<sup>440</sup> Public Health Agency of Sweden (2021). *Nya åtgärder för att begränsa spridning av covid-19* [New measures to limit the spread of COVID-19] and Public Health Agency of Sweden (2021). *Beslut om rekommendationer* [Decision on recommendations].

<sup>441</sup> Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:104).

<sup>442</sup> Folkhälsomyndigheten.se (2021). *Flera nya åtgärder vidtas den 23 december när smittspridningen väntas öka* [Several new measures to be introduced on 23 December when spread of infection is expected to increase] and Public Health Agency of Sweden's regulations and general guidelines on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2021:104).

<sup>443</sup> Folkhälsomyndigheten.se (2022). *Förebyggande arbete viktigt inför skolstarten* [Preventative work important before school start].

indoors by refraining from large dinners and parties and similar social situations. The amendments came into force on 12 January 2022.<sup>444</sup>

In the area of the schools, face-to-face instruction continued to be the main rule for the compulsory schools, upper-secondary schools and upper-secondary schools for pupils with intellectual disability. However, the schools must take measures to prevent the spread of infection, such as being outdoors, avoiding large gatherings indoors and avoiding mixing classes. Face-to-face instruction also continued to apply in adult education, but with risk-reducing measures.

On **20 January**, the National Agency for Education announced that the schools could expect an aggravated situation with absences over the coming weeks.<sup>445</sup> The schools were assessed to be obligated to focus on the core mission of teaching and care of children whose guardians worked in essential services during this period. The National Agency for Education also announced that remote teaching might be a necessary measure locally under certain circumstances in order to carry out the core mission.

## February

On **2 February**, the Public Health Agency decided that most of the COVID-19 recommendations could be lifted on 9 February.<sup>446</sup> However, certain recommendations concerning vaccinating, staying home with symptoms and in regard to unvaccinated persons would remain.

## March

On **3 March**, the Government announced that the schools' opportunity to conduct remote teaching, the principals' opportunity to set grades instead of teachers, and the National Agency for Education's opportunity to cancel the national tests would be removed on 1 April through an amendment to the Ordinance on education in the school and other pedagogical activities during the spread of certain infections.

However, it would be possible, until 31 July 2022, to make certain adaptations in order to deal with the consequences of the pandemic, such as extending school days and the semester, and arranging education on weekends or holidays.<sup>447</sup>

On **24 March**, the Government decided to amend the Ordinance on study support during the spread of certain infections. Previously, it was possible for pupils to retain study assistance, student finance and study start support if the teaching was

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<sup>444</sup> Regulations on changes to the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:104) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2022:1).

<sup>445</sup> Swedish National Agency for Education (2022). *Ökad smittspridning i förskolan och skolan väntas de kommande veckorna. Nyhetsbrev* [Increased spread of infection in the preschools and schools expected in coming weeks. Newsletter].

<sup>446</sup> Regulations on the repeal of the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:87) on infection prevention measures against the disease COVID-19 (HSLF-FS 2022:14), Regulations on the repeal of the Public Health Agency of Sweden's regulations and general guidelines (HSLF-FS 2021:104) on everyone's responsibility to prevent the spread of COVID-19, etc. (HSLF-FS 2022:15) and Folkhälsomyndigheten.se (2022). *Pandemin med covid-19 går in i en ny fas* [The COVID-19 pandemic enters a new phase].

<sup>447</sup> Ordinance (2022:144) amending Ordinance (2020:115) on education in the school and other pedagogical activities during the spread of certain infections

cancelled due to restrictions related to COVID-19, but this opportunity was removed on 1 April 2022.<sup>448</sup>

## **April**

On **1 April**, the Public Health Agency lifted the majority of the remaining restrictions connected to COVID-19.<sup>449</sup>

## **May**

On **5 May**, the temporary changes in the terms for the government grant for holiday school were extended. The aim was that pupils who needed support in catching up on the knowledge they had missed during the COVID-19 pandemic should get it. By extending the changes, it continued to be easier for organisers to get the grant paid, and they could also offer holiday school to pupils who had completed upper-secondary school without a degree. The extension applies until 31 December 2022.<sup>450</sup>

## **July**

On **31 July**, the Ordinance on education in the school and other pedagogical activities during the spread of certain infections ceased to apply.

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<sup>448</sup> Ordinance (2022:231) amending Ordinance (2020:201) on study support during the spread of certain infections.

<sup>449</sup> Regeringen.se (2022). *Så arbetar regeringen för en god utbildning under pandemin* [How the Government is working for good education during the pandemic].

<sup>450</sup> Regeringen.se (2022). *Regeringen förlänger tillfälliga regler för att underlätta lovskola* [Government extends temporary rules to facilitate holiday school].

## Appendix 2: Grade and test developments during the pandemic

This appendix reports on the development of grades and the national tests in the compulsory and upper-secondary schools during the pandemic. The appendix also analyses if there is a relationship between the number of weeks of remote teaching at a school and the school's grade developments in 2021. Finally, it analyses whether there is a connection between the principals' and teachers' autumn 2021 survey responses on a loss of knowledge with the grade developments in the schools.

For the analyses in this appendix, the National Agency for Education has had access to the grading results in school year 9 for spring 2022. The appendix also presents a short summary of the results from the national tests in the compulsory schools for the 2021/22 academic year. However, there has not been the scope to perform any analyses based on the results in this appendix. The same applies for the grading results for the upper-secondary schools for spring 2022, which have not been possible to analyse in the work with this appendix. A brief account of pupil completion in the upper-secondary schools and the results from the national tests are presented, but these have not been included in any in-depth analyses. This is an important limitation when it comes to conclusions about the grades during the pandemic.

### Background on grades during the pandemic

In previous reports, the National Agency for Education has stated that grades are not reliable measures of the pupils' knowledge development. Grades are not set equally and there is grade inflation.<sup>451</sup> As described in Chapter 3, the national tests were cancelled when the pandemic hit in the spring of 2020, which makes grades even more uncertain as a measure of knowledge development. The national tests returned in the 2021 autumn semester to the upper-secondary schools and in the 2022 spring semester they were also back in the compulsory schools, so it is interesting to see how this affected the grades. The pupils who finished school year 9 of compulsory school and Year 3 of upper-secondary school in the 2022 spring semester are likely those whose schooling has been most affected by the pandemic. Yet there is a problem with using the grades to investigate how the pandemic has affected the pupils' knowledge development. This requires knowledge measurements that are designed to measure the pupils' knowledge

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<sup>451</sup> Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools], Swedish National Agency for Education (2020). *Analys av likvärdig betygssättning i gymnasieskolan. Jämförelser mellan kursbetyg och kursprov* [Analyses of equitable grading in the upper-secondary schools. Comparisons between course grades and course tests], Swedish National Agency for Education (2020). *Att särskilt beakta nationella prov. Statistiska analyser av relationer mellan betyg och provbetyg i årskurs 9* [Paying particular attention to national tests. Statistic analyses of relationships between grades and test scores in school year 9] and Swedish National Agency for Education (2021). *Covid-19-pandemins påverkan på skolväsendet. Delredovisning 4* [The impact of the COVID-19 pandemic on the education system. Interim Report 4].

development. Unfortunately, there are no such relevant measurements at present. PIRLS 2021 measures the pupils' reading comprehension in school year 4 and PISA 2022 measures 15-year-olds' knowledge in reading comprehension, mathematics and the natural sciences. Both of these measurements will be presented in 2023<sup>452</sup> and may come to provide some basis for assessments of the pandemic's effects on the pupils' knowledge development. For the upper-secondary schools, there is unfortunately no corresponding international knowledge measurement that can show the pandemic's effect on knowledge development.<sup>453</sup>

Both in terms of grade developments in general and grade developments for different groups of pupils, it is important to be aware that the changes that are being seen may be a result of changed grading and not of changed knowledge development, or may be a mixture of both. For school year 9, the conditions to make such assessments are better as there is access to grades for the 2022 spring semester when the national tests were back.

## Drop in grades in most subjects in school year 9 during the end of the pandemic

The National Agency for Education has studied the grade developments in school year 9 of the compulsory schools during the pandemic by comparing grade developments between 2017 and 2022. In this investigation, the same pupil cohort's grades from school year 6 were used to investigate whether any changes can be seen in the development of results between school years 6–9. Grade developments have also been studied for pupils with different backgrounds (gender, migration background, different levels of parents' education, whether they went to municipal or independent school) and for pupils with different performance levels. This was done to examine whether the grade developments during the pandemic affect different groups differently.

An overview is presented below. Table 2 shows the grade points for school year 9 in all subjects that all pupils study in compulsory school.

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<sup>452</sup> PIRLS 2021 has been delayed and the results will be published in 2023. PISA 2022 was published in December 2023.

<sup>453</sup> There is no decision on whether and when TIMSS Advanced, which measures advanced knowledge in mathematics and physics in the upper-secondary schools, will be conducted next time.

**Tabell 2.** Average grade points in mandatory subjects, school year 9 for all pupils, academic year 2012/13–2021/22.<sup>454</sup>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Engelska	14,2	14,4	14,5	14,3	14,1	14,4	14,5	14,6	14,6	14,9
Matematik	12,6	12,3	12,2	12,3	12,0	12,2	12,0	12,5	12,5	12,2
Svenska	13,7	13,9	14,0	14,1	14,2	14,3	14,2	14,3	14,4	13,8
Svenska som andraspråk	9,0	8,8	8,2	6,5	6,8	8,0	8,0	8,6	9,1	8,8
Geografi	13,2	13,3	13,4	13,4	13,4	13,6	13,8	13,8	13,9	13,6
Historia	13,2	13,5	13,5	13,6	13,5	13,7	13,8	13,9	14,0	13,7
Religionskunskap	13,2	13,4	13,6	13,5	13,4	13,8	13,7	13,8	13,9	13,6
Samhällskunskap	13,2	13,3	13,5	13,6	13,4	13,6	14,0	13,8	13,8	13,7
Biologi	12,8	13,1	13,2	13,2	13,1	13,5	13,5	13,5	13,5	13,4
Fysik	12,7	12,7	12,9	13,1	13,0	13,2	13,2	13,3	13,3	13,2
Kemi	12,4	12,6	13,0	12,9	12,8	13,1	13,1	13,1	13,2	13,0
Bild	14,1	14,2	14,4	14,3	14,4	14,7	14,7	14,8	14,9	14,8
Hem- och konsumentkunskap	14,1	14,3	14,4	14,3	14,4	14,6	14,7	14,7	14,8	14,7
Idrott och hälsa	14,2	14,4	14,4	14,2	14,3	14,5	14,6	14,6	14,6	14,4
Musik	14,0	14,2	14,4	14,3	14,4	14,6	14,7	14,8	14,9	14,8
Slöjd	14,2	14,4	14,6	14,4	14,6	14,7	14,8	14,9	14,9	14,9
Teknik	13,2	13,4	13,6	13,6	13,7	13,8	13,9	14,0	14,0	13,9

Table 2 shows that the long-term trend is for grade points to be increasing in most subjects up through 2021, with the exception of mathematics, where the development is more uneven. Swedish as a second language is strongly affected by immigration and how many pupils are studying the subject. No change in developments can be seen in 2020 and 2021, the first two years affected by the pandemic. In 2022, however, there is a drop in all subjects except English. In crafts, the results are the same as in 2021. The decline appears both in subjects that have national tests and those that do not have national tests, but the overall decline is about twice as large in the subjects that have national tests. The greatest decline appears in Swedish and the results there are at the same level as at the beginning of the time period. Demographic changes have an influence on grade developments, but the changes cannot explain the 2022 decline. The affect of demographic changes is described in more detail below.

### Decline in merit ratings in 2022 among all studied pupil groups

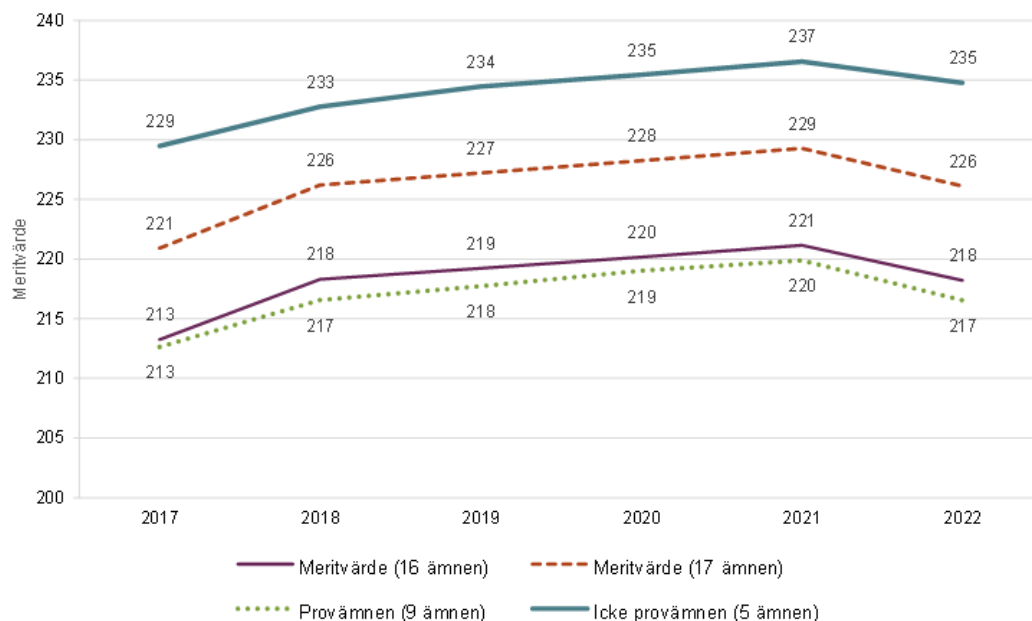
Diagram 1 shows the development of merit ratings for all pupils and for the subjects that normally have national tests and normally do not have national tests in school year 9.<sup>455</sup> The subject groups are recalculated so that they correspond to a merit rating of up to a maximum of 320 points.

<sup>454</sup> Sweden's official statistics. *Table 8A-T*.

<sup>455</sup> The subjects that have national tests in school year 9 are: mathematics, Swedish, English, physics, chemistry, biology, geography, history, religion and social studies. All pupils take national tests in mathematics, Swedish and English, but the pupils only complete one test in one of the respective natural science subjects and social science subjects. The subjects that do not have national tests are art, music, crafts, physical education and health, home economics, and engineering and technology. There are also subjects such as Swedish as a second language, mother tongue, modern languages, sign language for the hearing, dance and Jewish studies. These subjects are not mandatory for all pupils and are not reported on here.



**Diagram 1.** Different types of merit ratings 2017–2022. Divided into the group of subjects that normally have national tests and the group of subjects that do not have national tests. Rescaled ratings.\* All pupils.\*\*



\*Note that both merit rating (17 subjects), tested subjects and non-tested subjects have been rescaled to the same scale as the merit rating for 16 subjects so that they all vary between 0–320 points. The rescaling has been done by multiplying each measurement with the respective factor (16/17), (16/9) and (16/5).

\*\*‘All pupils’ refers to the school year 9 pupils who have a final school grade set on the A–F scale according to the grade data file: A07a for each year. Pupils who do not receive conventional final school grades on this scale have been excluded.

Diagram 1 shows that the merit ratings continue to rise in 2020 and 2021 but then drop in 2022 to about the same level as before the pandemic. The statistics can unfortunately not show whether it is the pandemic that affected the pupils’ grades and why, in this case, it only happens for the cohort that finished school in the 2022 spring semester. However, it is this cohort whose schooling was most affected overall by the pandemic.

The next aspect based on Diagram 1 concerns the results for tested subjects versus non-tested subjects.<sup>456</sup> The merit ratings for both subject groups increased in 2020 and 2021 and decreased in 2022. The decline in 2022 is somewhat larger in the tested subjects (which is also seen in Table 1 where English is the exception) and end up slightly under the 2019 results. Whether it is the pandemic that had a more negative impact on the teaching in the tested subjects<sup>457</sup> or whether it is due to the national tests being back in the 2022 spring semester is analysed further below.

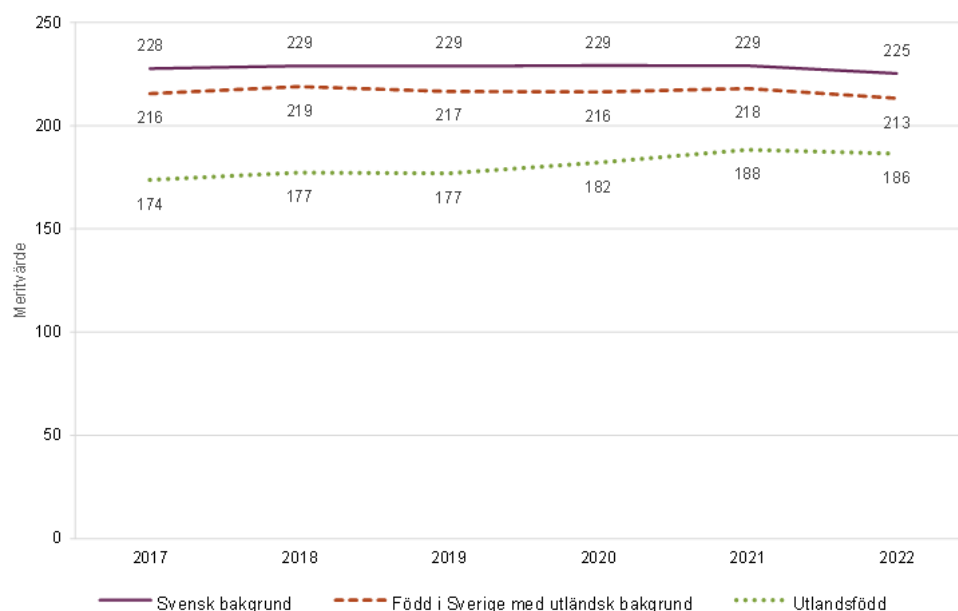
<sup>456</sup> The term used here in the appendix for the subjects in which national tests are not normally given.

<sup>457</sup> One might otherwise think the opposite, that it is more difficult to conduct practical–aesthetic teaching remotely. The organisers, for example, assess in the organisers’ surveys in autumn 2021 a higher feared loss of knowledge in the practical–aesthetic subjects, but also in mathematics and Swedish.

## Merit ratings decrease the least for foreign-born pupils

It has already been established that demographic changes due to immigration can affect grade developments.<sup>458</sup> Diagram 2 below shows the development of merit ratings broken down by migration background.

**Diagram 2.** Merit ratings (16 subjects) school year 9, 2017–2022 broken down by migration background.



\*The pupil group that does not have serial numbers (=anonymised personal identity numbers) consists overwhelmingly of foreign-born pupils who have not yet been registered in the population register because they are waiting to have their residency permit applications processed. This group comprised 2.2 per cent of the entire cohort in 2017 but only comprises 0.5 per cent in 2021. This means that its impact on the total merit rating was significantly greater in 2017 than in 2021.

Diagram 2 shows that for pupils with Swedish backgrounds and pupils born in Sweden with foreign backgrounds, the merit ratings have hardly changed 2017–2021.<sup>459</sup> It is instead foreign-born pupils whose merit ratings have increased, primarily in 2020 and 2021 but also somewhat between 2017 and 2018.

The merit ratings for all groups decreases in the 2022 spring semester, but least of all for foreign-born (-2 points), in comparison with pupils with a Swedish background (-4 points) and pupils born in Sweden with a foreign background (-5 points).

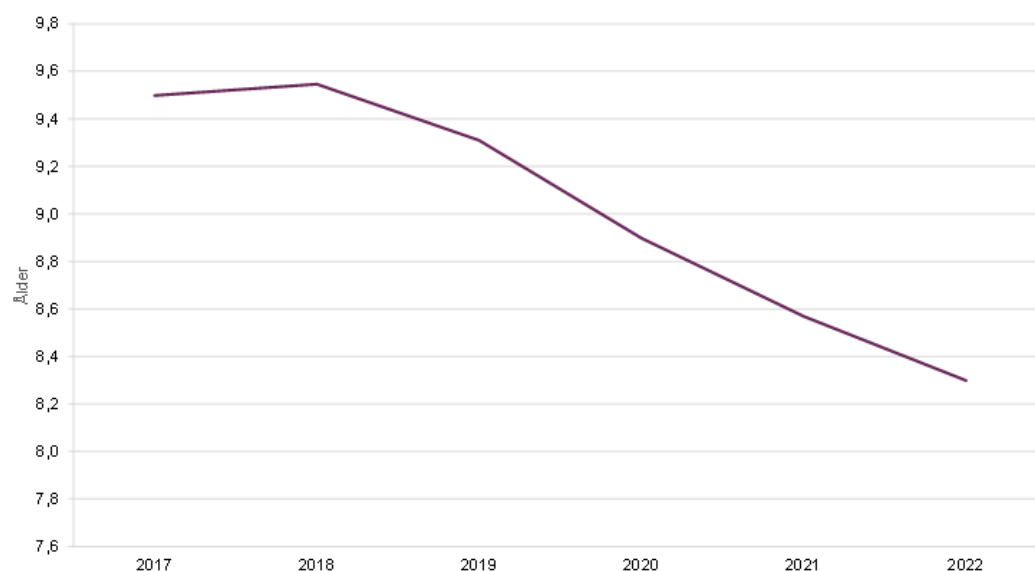
One explanation for this positive change in grades for foreign-born pupils in 2017–2021 and a smaller drop in 2022 may be that the average immigration age

<sup>458</sup> Swedish National Agency for Education (2016). *Invandringens betydelse för skolresultaten. Skolverkets aktuella analyser 2016*. [The importance of immigration for school results. Swedish National Agency for Education's current analyses 2016].

<sup>459</sup> Viewed over a longer time period (since 1998), however, the merit ratings have increased for pupils with Swedish backgrounds and pupils born in Sweden with foreign backgrounds. It is only from 2017 to 2021 that there was no increase. The temporary drop in merit ratings that occurs in 2016 for all pupils can be attributed to the large wave of immigration. Swedish National Agency for Education (2016). *Invandringens betydelse för skolresultaten. Skolverkets aktuella analyser 2016*. [The importance of immigration for school results. Swedish National Agency for Education's current analyses 2016].

for pupils decreased, which means that pupils on average attended Swedish schools for more years before they received grades in school year 9. This in turn is due to the fact that immigration has decreased significantly in recent years so that the proportion of relatively new arrivals among all foreign-born pupils has decreased.<sup>460</sup> Diagram 3 shows how the average immigration age has decreased.

**Diagram 3.** Average immigration age for foreign-born pupils.\*



\*The average immigration age is calculated based on the average of the pupils' first year of immigration for the pupils who were born abroad.

It can be added here that the composition has also changed in terms of countries of birth for foreign-born pupils who finish school year 9. There are relatively more who were born in Syria and relatively fewer in Afghanistan and Somalia, where the pupils have likely on average had poorer conditions for their schooling.<sup>461</sup>

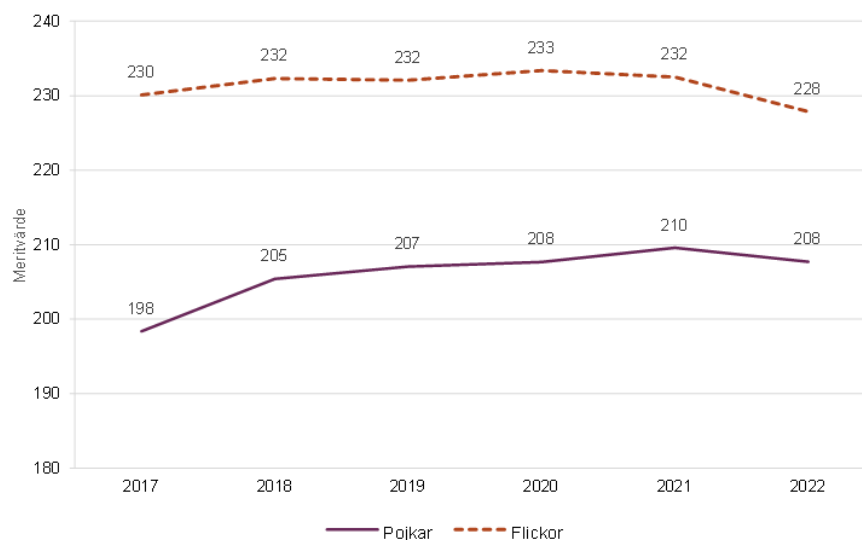
### **Girls' merit ratings decrease more than boys'**

There are also interesting differences between boys' and girls' merit ratings over time. Diagram 4 below shows the development of merit ratings broken down by gender.

<sup>460</sup> Also see Swedish National Agency for Education (2022). *Slutbetyg i grundskolan. Våren 2022 [Final grades in the compulsory schools. Spring 2022]*.

<sup>461</sup> See Swedish National Agency for Education (2016). *Invandringens betydelse för skolresultaten. Skolverkets aktuella analyser 2016 [The importance of immigration for school results. Swedish National Agency for Education's current analyses 2016]*. See p.16f for an overview of factors that could influence immigrants' school results.

**Diagram 4.** Merit ratings (16 subjects) in school year 9, broken down by gender. All pupils.\*

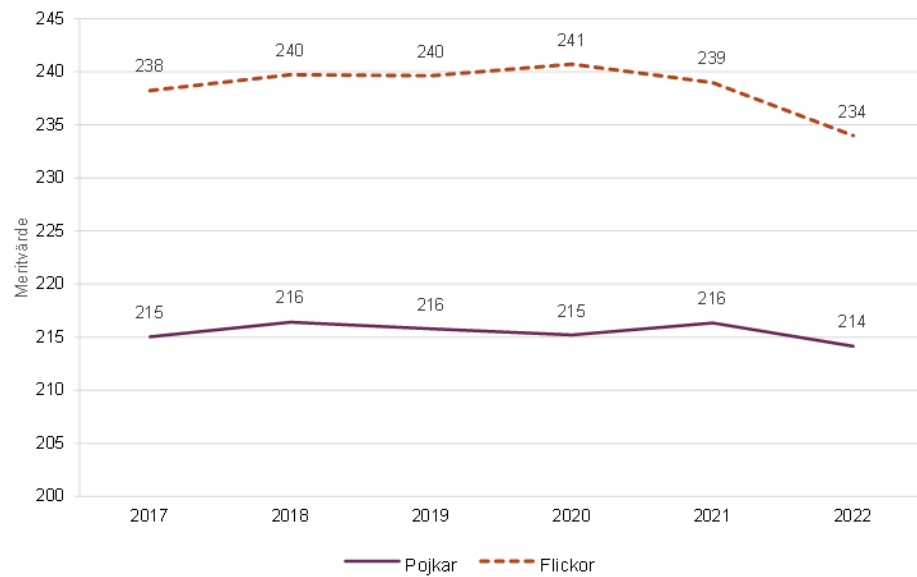


\*All pupils' refers to the school year 9 pupils who have a final school grade set on the A–F scale according to the grade data file: A07a for each year. Pupils who do not receive conventional final school grades on this scale have been excluded. See Appendix 2 for a more detailed report of the data base.

A tendency is seen here for the gap between boys and girls to decrease over time and that it decreased a little more in 2021 as merit ratings improved for boys while they decreased slightly for girls. In 2022, the gap narrows further in that the decline is significantly greater for girls than for boys.

If you only analyse pupils born in Sweden (Diagram 5), there is no reduction in the gap between 2017 and 2020, which indicates that there are demographic changes behind the narrowed gap in these years. But the gap decreases in the same way in 2021 and 2022 in Diagrams 4 and 5, which indicates that there are other causes than demographics behind the change in these years.

**Diagram 5.** Merit ratings (16 subjects) in school year 9, broken down by gender. Pupils born in Sweden.



The spread in the development of school year 9 grades is examined below. This is done with the spread measure standard deviation. Because demographic changes may influence the spread, the analysis in Diagram 6 is also broken down by migration background.

**Diagram 6.** Spread (standard deviation) in merit ratings (16 subjects) school year 9 broken down by migration background.

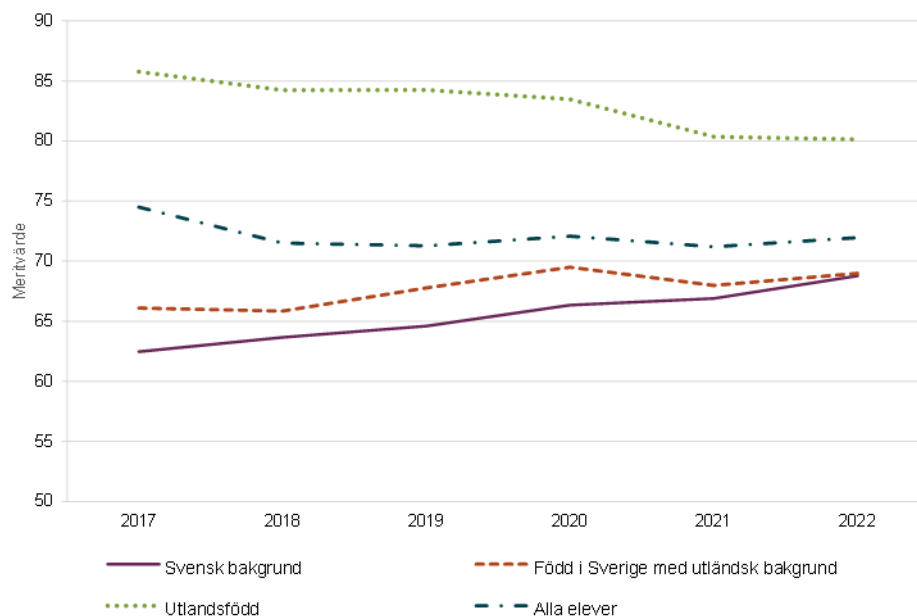


Diagram 6 shows that, looking at all pupils (dotted line), there has been no significant change at all between 2018 and 2022. If the analysis is broken down

by migration background, however, changes are visible. There is an increased spread for pupils with Swedish backgrounds and for pupils born in Sweden with foreign backgrounds, while there is a decreased spread for foreign-born pupils.<sup>462</sup> There is a continuous increase for pupils with a Swedish background, while the development is a bit choppy for the other groups, which may be due to the fact that these are smaller groups. Regardless, it is difficult to see from Diagram 6 whether the pandemic has had any effect on the development of spread between the pupils' grades.

### Decline for pupils with the lowest grades

It is also interesting to study developments in grades for pupils with low grades and those with high grades. To avoid demographic effects, only pupils born in Sweden (with a Swedish or foreign background) are studied.

**Diagram 7.** The grade development (merit ratings) for pupils with low grades (5th and 10th percentiles) and high grades (90th and 95th percentiles). Pupils born in Sweden.

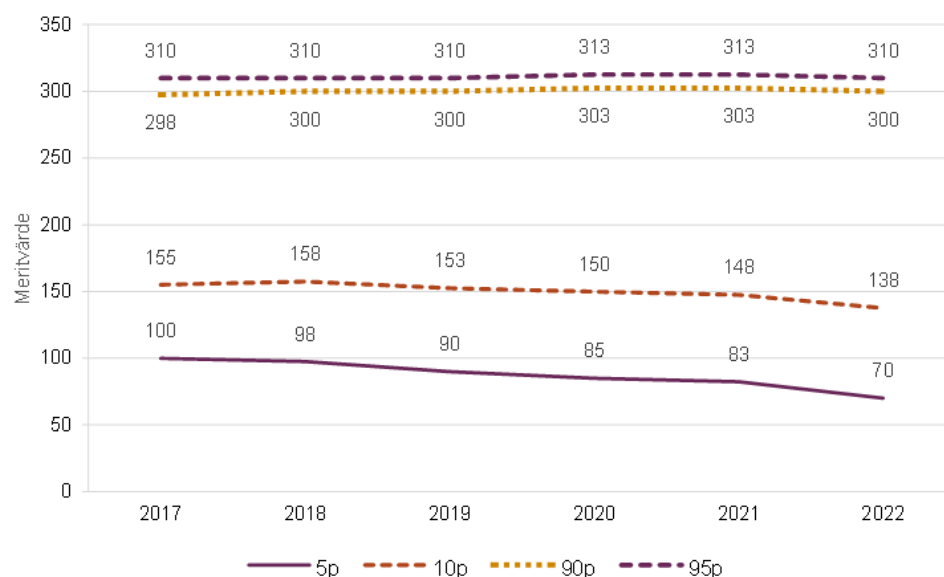


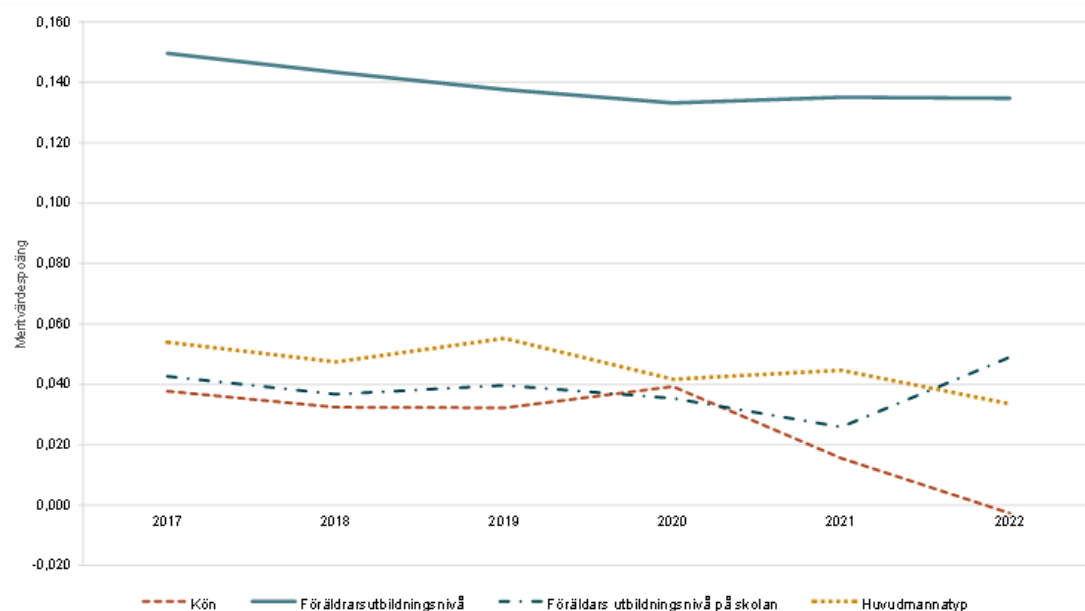
Diagram 7 shows that the grades for the pupils with the highest grades are stable, while there is a decline for pupils with the lowest grades. It is difficult to determine, however, if anything particular is happening in connection with the pandemic. However, the decline is significantly steeper in the 2022 spring semester for pupils with the lowest grades. The diagram shows that the increased spread in Diagram 6 seems to be due to a greater drop for pupils with the lowest grades.

<sup>462</sup> This reduced spread during this time period for foreign-born pupils is consistent with the changed demographics in this group and with the high level of spread that occurred in connection with the wave of immigration in 2015.

## Girls lose their grade advantage

Finally, the National Agency for Education has performed a more advanced analysis (regression analysis).<sup>463</sup> This analysis controls for the pupils' grades in school year 6 and also for various background variables: the pupil's gender, the pupil's parents' level of education, the parents' average level of education at the pupil's school, and whether the pupil attends a municipal or independent school.<sup>464</sup> This enables us to study each variable's effect on the grades in school year 9 as it is held constant for the other variables in the model. Diagram 8 shows the development over time for some of the categories. The analysis is limited to pupils born in Sweden so that the development is not affected by the demographic changes reported above.

**Diagram 8.** Standardised effect sizes on merit ratings in school year 9 (16 subjects) by each variable, after controlling for, e.g., school year 6 grades. Pupils born in Sweden.\*



\* The diagram shows standardised effect sizes from a regression model with the pupils' merit ratings as outcome variable and as explanatory variables: pupils' corresponding merit ratings from school year 6, gender, pupil's socio-economic background (edu13\_index), the school's socio-economic pupil composition (edu13\_index\_school), dummy variable for whether a pupil was born in Sweden with foreign background, and organiser.

The interpretation of Diagram 8 is more complex than previous diagrams. What is important here is determining if anything appears to be happening in connection with the pandemic. No curve moves downward in all three pandemic years, 2020, 2021 and 2022. The clearest change concerns gender. The decline means that girls are losing their advantage in grades (given their school year 6 grades) and this development is consistent with the narrowing gap between the genders shown in Diagrams 4 and 5. Otherwise, there is no curve that goes in the same direction in

<sup>463</sup> See description of the regression model at the end of the appendix.

<sup>464</sup> There may hypothetically be a scheme in the grading if the pupil went to the same school in school years 6 and 9 and the school is particularly generous or strict in their grading. We have therefore also tested analysing with the national tests in mathematics, Swedish and English in school year 6 (which are the only tests that are mandatory) instead and this does not change the results to any great extent.

2021 and 2022 and it is therefore difficult to say based on this analysis that the pandemic has affected differently based on the pupils' parents' level of education, composition at the school in terms of pupils' parents' level of education or whether the pupils attend independent or municipal school.

In terms of the importance of the parents' level of education at the pupil's school, the grades drop slightly in 2021 but increase clearly in 2022. How this pattern can be interpreted is further described below, where each subject is analysed separately.<sup>465</sup>

### **The national tests have a restraining effect on the impact of relative grading**

Below, each subject is analysed separately in terms of so-called *relative grading*, i.e., that the grades are set in relation to the school's pupil composition.<sup>466</sup> In the analysis, the grades are studied in relation to the school's socio-economic pupil composition (measured as the average level of education of the parents at the school).

#### **Fact box: Explanation of the model's description of relative grading – significance of the school's socio-economic pupil composition for grading.**

Based on previous analyses and research, it is shown that on average (but not always), a pupil's knowledge and grades can be positively affected if they attend a school with a more favourable pupil composition. This may be due to factors such as a positive impact from study-motivated schoolmates and that teachers have higher expectations of the pupils. That it is not only grades but also the pupils' knowledge that benefits from attending a school with a more favourable pupil composition is shown, among other things, from international knowledge measurements such as PISA, where there are externally corrected tests of pupils' knowledge.<sup>467</sup>

Yet previous analyses and research shows that grading in itself is on average more restrictive at schools with a high performance level. A pupil with a certain test result is less likely to get a higher grade if they attend a school with a high performance level. This is usually called relative grading and means that teachers grade based on the general performance level of the teaching group. This so-called *relative grading effect* thus counteracts the positive effects on pupils' grades of attending a school with a higher performance level, or as here, a school with a more favourable socio-economic pupil composition (measured using the parents'

<sup>465</sup> On relative grading, see Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools].

<sup>466</sup> Note that previous analyses have studied grading in relation to the school's average performance level on the national tests; see Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools]. Because the national tests were cancelled during the pandemic, relative grading is measured here instead with the average level of education of the parents at each school.

<sup>467</sup> Swedish National Agency for Education (2019). *PISA 2018. 15-åringars kunskaper i läsförståelse, matematik och naturvetenskap* [15-year-olds' knowledge in reading comprehension, mathematics and natural sciences].



average level of education), which co-varies with a higher level of performance. In all, this means that pupils who move into a school with a more favourable socio-economic pupil composition can, on average, be expected to learn a little more but will also, on average, have more difficulty getting a higher grade (given the same knowledge, for example given a certain test grade).

Because the effect on the grades of the school's socio-economic pupil composition, which is shown in the diagrams, is consistently positive, this means that the positive effect on knowledge is larger than the negative effect on grading. But if a *sudden* change in this effect is seen, it should not be interpreted as the effect on knowledge changing, but should instead be interpreted as a change in the grading itself. The reason for this is that changes in knowledge as a consequence of the effect of the school's composition are very likely to occur more continuously over longer periods of time.<sup>468</sup> It is more likely that relatively sudden changes from one year to another are due to changes in grading.

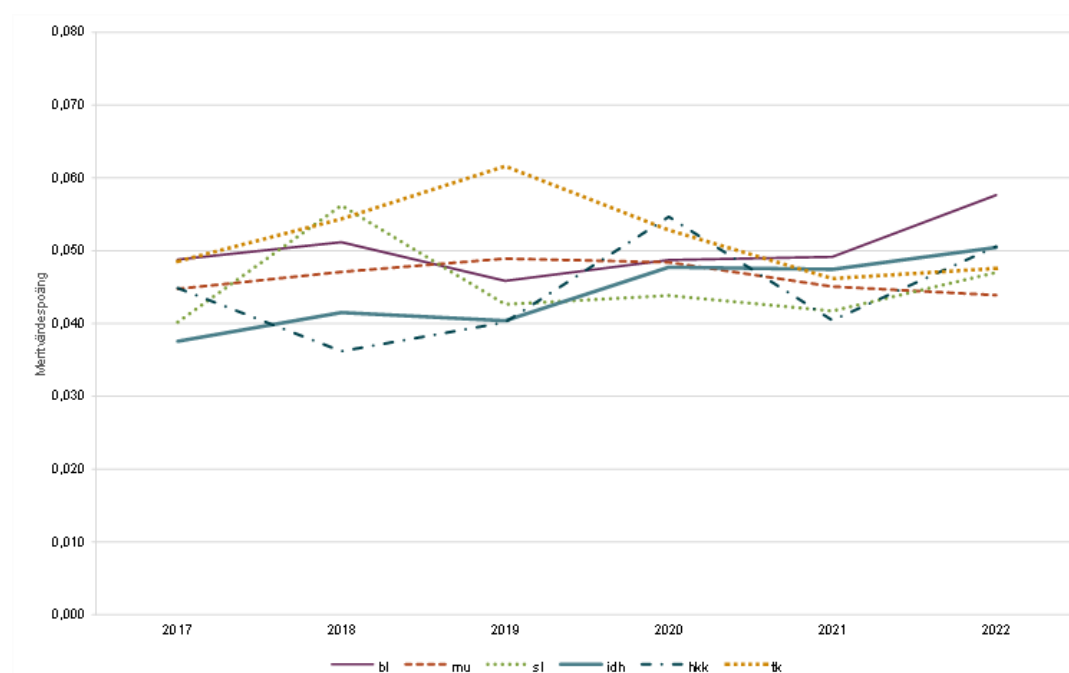
A falling curve can be interpreted as that the relative grading effect has increased, i.e., it has become relatively *more difficult* to get a certain grade, given the pupil's knowledge, if they attend a school with a more favourable socio-economic pupil composition. That a falling curve signifies an increased effect works like this: A favourable socio-economic pupil composition at the school is on average positive for a pupil's grades – but the relative grading is on average also negative for the same pupil's grades. When relative grading increases, the curve therefore falls.

Diagram 9 below shows how the school's socio-economic pupil composition (measured as the average level of education of the parents at the school) affects grades in non-tested subjects.

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<sup>468</sup> See, for example, SOU 2019:40.

**Diagram 9.** Standardised effect size of the school's socio-economic pupil composition (=school's average socio-economic background) in respective school year 9 grades (after controlling for, e.g., school year 6 grades). Subjects that normally do not have national tests. Pupils born in Sweden.\*



\* The diagram shows standardised effect sizes from separate regression models for each grade with the pupils' respective grades as outcome variable and as explanatory variables: pupils' corresponding grades from school year 6, gender, pupil's socio-economic background (edu13\_index), the school's socio-economic pupil composition (edu13\_index\_school), dummy variable for whether a pupil was born in Sweden with foreign background, and organiser. See Appendix 2 for a further description of the model  
The subjects reported in Figure 9 are art (ART), music (MU), crafts (CR), physical education and health (PEH), home economics (HE) and engineering and technology (ET).

Diagram 9 shows no clear break in the trend during the pandemic. The results can therefore be interpreted as that grades in non-tested subjects have not been affected based on the school's socio-economic pupil composition, i.e., neither an increase nor a decrease in relative grading. This was also an expected result because the subjects do not have national tests whether there is a pandemic or not.

Below, a similar analysis is performed with the subjects that normally have national tests (Diagram 10), but where the tests were cancelled during the pandemic but returned in the 2022 spring semester.

**Diagram 10.** Standardised effect size of the school's socio-economic pupil composition (=school's average socio-economic background) in school year 9 grades (after controlling for, e.g., school year 6 grades). Subjects that normally have national tests. Pupils born in Sweden.\*



\* The diagram shows standardised effect sizes from separate regression models for each grade with the pupils' respective grades as outcome variable and as explanatory variables: pupils' corresponding grades from school year 6, gender, pupil's socio-economic background (edu13\_index), the school's socio-economic pupil composition (edu13\_index\_school), dummy variable for whether a pupil was born in Sweden with foreign background, and organiser.

The subjects reported in Figure 10 are mathematics (MA), Swedish (SW), English (EN), chemistry (CH), biology (BI), geography (GE), history (HI), religion (RE) and social studies (SS).

Diagram 10 shows no clear change in 2020 but in 2021, a clear drop is seen in virtually all tested subjects. In 2022, when the national tests are back, a clear upswing is seen instead. In most of the natural science and social science subjects, the level is somewhat higher than it was before the pandemic, while in mathematics, Swedish, English and physics, the level is the same. It is impossible to give an answer as to why the decline is not already visible in 2020 when the tests were cancelled, but this can be due to a backlog that only breaks through in 2021. The drop in 2021 could hypothetically be due to schools with less favourable pupil compositions having improved their teaching in comparison with other schools with a more favourable pupil composition during the pandemic and that this had a positive impact on the grade results. But in that case, the same schools have suddenly experienced a deterioration in their teaching in 2022, which seems less likely. That this would have happened in tested subjects but not in non-tested subjects does not seem likely either. One likely explanation has to

do with the national tests having a certain normative effect on grading. Without national tests, this normative effect disappears and the teachers base grading to an even higher extent on their pupil base when they interpret the knowledge requirements. As the National Agency for Education has shown before, the so-called *relative grading* increases even more without the national tests.<sup>469</sup> In concrete terms, this means that a pupil who attends a school with a more favourable pupil composition receives even more *restrictive* grading in 2021 when the national tests were cancelled (see fact box above on how a falling curve can be interpreted as an increase in relative grading). That the curves bend upwards when the national tests return is a strong indication that the national tests have a restraining effect on the impact of relative grading. In 2022, there is a return to the ‘normal’ level of relative grading in the subjects that have national tests.

The results thus indicate that the national tests to some extent counteract grades being set too highly in relation to the school’s composition (even if the relative grading is significant even with national tests). When the tests are cancelled, the teachers have even less of a national reference point to relate to when they set grades, and risk then to an even greater extent basing grades on the general performance level at the school (and in their teaching groups). If the teacher, for example, in mathematics<sup>470</sup> will assess if a pupil *reasons and follows mathematical reasoning by making and responding to statements with simple* (grade level E), *relatively well-substantiated* (C) or *well-substantiated* (A) *mathematical arguments*, the teacher does this to a greater extent than previously based on their own teaching group’s performance level if they do not have access to a countrywide national test that helps indicate the requirement limits for different grades. Diagram 10 thus shows that the national tests have a certain restraining function on relative grading.

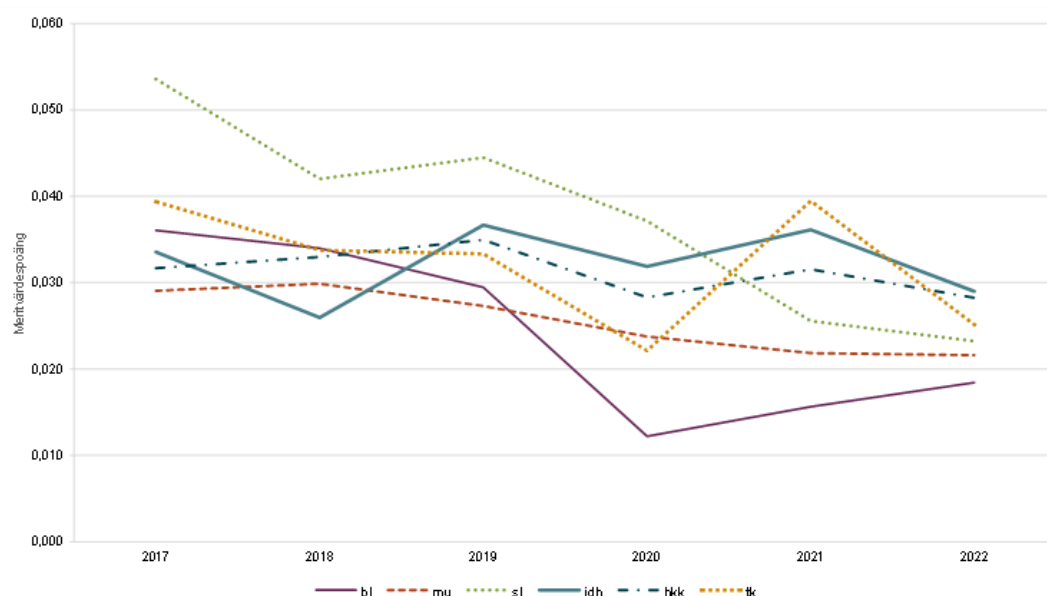
Finally, it was analysed whether there were any differences in grade patterns for different subjects during the pandemic depending on whether the pupil went to a municipal or an independent school. As shown in Diagram 8 above regarding the merit rating, the grade differences for organiser type went down slightly in 2020 and were at the same level in 2021, and then went down slightly again in 2022. The grades in school year 9 are analysed based on organiser type after taking into account the pupil’s grades in school year 6, the pupil’s gender, migration background and socio-economic background, as well as the school’s socio-economic composition. Just as in the analysis of relative grading, we start with subjects that do not normally have national tests. A rising curve can be interpreted as independent schools’ grades in school year 9 increasing in relation to the pupils’ grades in school year 6, in comparison with municipal schools’ grades.

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<sup>469</sup> Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools].

<sup>470</sup> Currently applicable grading criteria in mathematics for school year 9.

**Diagram 11.** Standardised effect size of organiser (after controlling for, e.g., school year 6 grades). Subjects that normally do not have national tests. Pupils born in Sweden.\*



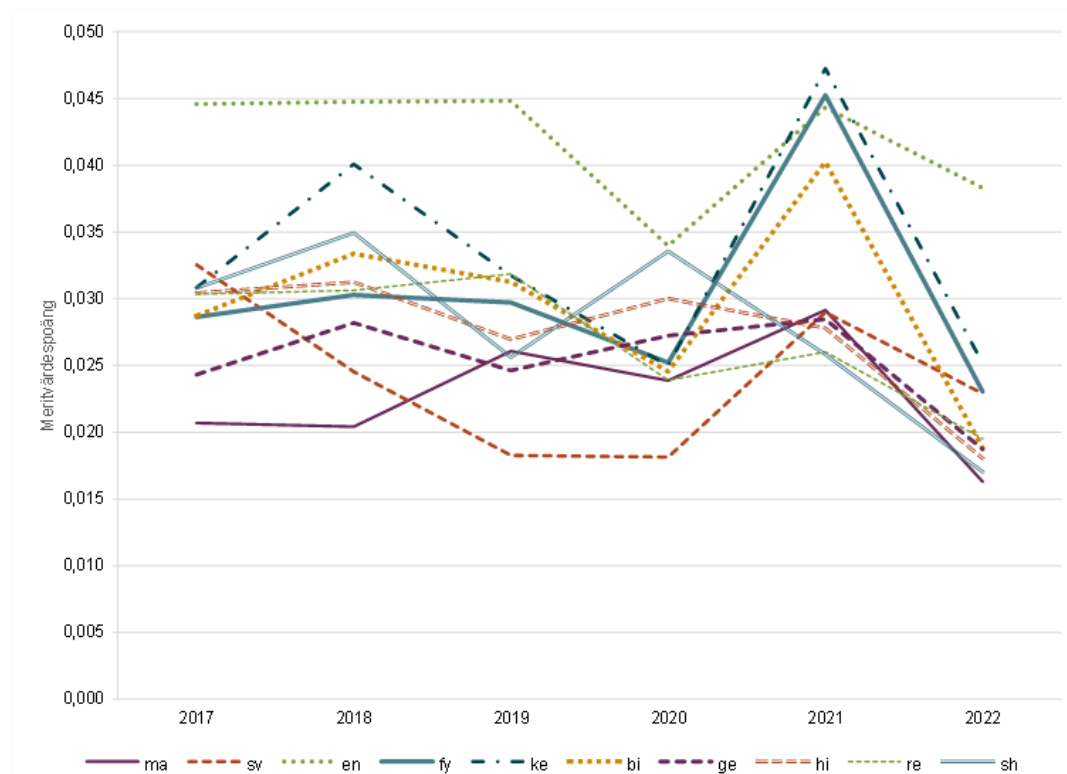
\* The diagram shows standardised effect sizes of organiser from separate regression models for each grade with the pupils' respective grades as outcome variable and as explanatory variables: pupils' corresponding grades from school year 6, gender, pupil's socio-economic background (edu13\_index), the school's socio-economic composition (edu13\_index\_school), and dummy variable for whether a pupil was born in Sweden with foreign background. ART (art), MU (music), CR (crafts), PEH (physical education and health), HE (home and consumer studies), ET (engineering and technology).

The difference between organisers' grades in school year 9 show no clear pattern during the pandemic. There is no clear trend during the pandemic for non-tested subjects viewed over the time period.<sup>471</sup>

Diagram 12 below shows the same thing with the subjects that normally have national tests.

<sup>471</sup> Positive values (regardless of trend) mean that the grade in school year 9 was set higher in independent schools than in municipal schools. This could thus be interpreted as independent schools maintaining a consistently higher quality of education in that the development of knowledge is higher between school year 6 and school year 9. SOU 2019:40 p.250ff. There is, however, convincing empirical evidence from both the National Agency for Education's reports and research showing that grading in independent schools is on average more generous than in municipal schools. Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools].

**Diagram 12.** Standardised effect size of organiser (after controlling for, e.g., school year 6 grades). Subjects that normally have national tests. Pupils born in Sweden.\*



\* The diagram shows standardised effect sizes of organiser from separate regression models for each grade with the pupils' respective grades as outcome variable and as explanatory variables: pupils' corresponding grades from school year 6, gender, pupil's socio-economic background (edu13\_index), the school's socio-economic composition (edu13\_index\_school), and dummy variable for whether a pupil was born in Sweden with foreign background. MA (mathematics), SW (Swedish), EN (English), PH (physics), CH (chemistry), BI (biology), GE (geography), HI (history), RE (religion), SS (social studies).

Diagram 12 shows a more aggregated pattern for the subjects that normally have tests. The exception is the subject of English, which showed no changes in 2020. There is an increase in 2021 in six of the ten tested subjects over the mean value for 2017–2019. In the natural sciences, there is a clear increase in relation to the pupils' school year 6 grades. When the tests come back in 2022, the curves bend downwards in all tested subjects. Below, we examine what might be the most likely explanation for this pattern.

In the National Agency for Education's surveys, the organisers for independent schools give in several respects a more positive assessment of the teaching during the pandemic than the municipal organisers. But it seems unlikely that the teaching in tested subjects in particular for pupils in independent schools would have developed in a more positive manner than in non-tested subjects, and that the teaching in tested subjects would also have been better than before the pandemic. If the teaching would have been better in tested subjects in 2021, it is difficult to explain the decline in 2022.

It is reasonable to interpret the pattern shown as a test effect. When the tests were cancelled, the tendency of the independent schools to grade more generously was

amplified, and when the tests came back in 2022, grading returned to about the same level as before the pandemic.

The pattern for school year 9 is consistent with an analysis of the grading in certain courses in the upper-secondary schools, where it emerged more clearly that independent schools set to some extent more generous course grades when the national tests are cancelled than those set by municipal schools.<sup>472</sup>

Earlier analyses have also shown that independent schools have on average more generous grading in relation to the national tests in all tested subjects.<sup>473</sup> The analysis shows that the cancelled tests may have amplified the more generous - grading somewhat in independent schools in the tested subjects.

The grading effects due to the cancelled tests must, however, be considered small and, as shown in Diagram 8 regarding the merit rating, there is nothing to suggest that independent schools overall graded more generously due to the pandemic.

Here, only the grades in school year 9 are examined and not fulfilment of entry requirements to upper-secondary school (which of course are also comprised of grade results). In another memorandum from the National Agency for Education, however, it is shown that eligibility for upper-secondary school shows the same patterns as reported above. It is thus not possible to determine whether the pandemic affected eligibility to upper-secondary school for any group of pupils.<sup>474</sup>

### **National tests in compulsory school, 2021/22 academic year**

As previously mentioned, the national tests could not be conducted in their entirety in the 2020 and 2021 spring semesters. But in the 2021/22 academic year, the tests could once again be conducted as planned. However, there has not been time to analyse the results for the national tests in the compulsory schools for the 2021/22 academic year, which are presented below, in the same way as the reports above in the appendix. Demographic changes, for example, may have affected the results. The results are also presented for the 2018/19 academic year, which is the last academic year before this in which the national tests had been carried out in full. The results of the national tests for both of these academic years are presented below. It should be emphasised, however, that it is not possible to fully compare results over time, as these can differ from year to year in terms of which knowledge areas in the course syllabus that the tests examine.

In school year 3, where national tests are carried out in Swedish or Swedish as a second language and mathematics, a slightly lower proportion of pupils achieved

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<sup>472</sup> Swedish National Agency for Education (2021). *Kursbetyg i slutet av gymnasieskolan. En jämförelse av betygen åren 2016–2020* [Course grades at the end of upper-secondary school. A comparison of grades from years 2016–2020].

<sup>473</sup> Swedish National Agency for Education (2019). *Analys av likvärdig betygssättning mellan elevgrupper och skolor* [Analyses of equitable grading between pupil groups and schools].

<sup>474</sup> Swedish National Agency for Education (2021). *Kursbetyg i slutet av gymnasieskolan. En jämförelse av betygen åren 2016–2020* [Course grades at the end of upper-secondary school. A comparison of grades from years 2016–2020]. The increasing eligibility is primarily attributable to foreign-born pupils and the reasons are most likely the same as we reported above.

the required levels on the test sections in the 2021/22 academic year than in the 2018/19 academic year.

Pupils in school year 6 take national tests in the subjects of Swedish or Swedish as a second language, English and mathematics. A somewhat lower proportion, 93.3 per cent, of the pupils achieved passing test grades (A–E) in Swedish in the 2021/22 academic year, in comparison with the 2018/19 academic year, in which 95 per cent of pupils did so. For Swedish as a second language, 71.5 per cent of the pupils achieved passing test grades in the 2021/22 academic year. The corresponding proportion was 71.1 per cent in the 2018/19 academic year. For English, the proportion with passing test grades was 94.4 per cent, and in mathematics, 88.8 per cent for the 2021/22 academic year. The corresponding results for the 2018/19 academic year were 94.2 per cent and 87.3 per cent, respectively.

For school year 9, the pupils take national tests in the same subjects as in school year 6, as well as in the natural science- and social science-oriented subjects. There was also a lower proportion of pupils in school year 9 who achieved passing test grades in the 2021/22 Swedish academic year in comparison with 2018/19. The proportion was 94.5 per cent in the 2021/22 academic year, in comparison with 96.5 per cent in the 2018/19 academic year. It was in Section B of the test in Swedish, which concerns reading, that had the largest change in the proportion of pupils with passing grades – 81.8 per cent in the 2021/22 academic year, in comparison with 92.0 per cent in academic year 2018/19.

Similar patterns to those in school year 6 can also be seen in Swedish as a second language, in which the proportion of pupils who achieved passing test grades increased. In the 2021/22 academic year, the proportion was 71.2 per cent and 67.3 per cent in academic year 2018/19. One explanation might be the demographic changes that were described earlier in this appendix. In two of three test sections, a higher proportion achieved passing grades. But just as for the test in Swedish, it was in Section B, which concerns reading, that a lower proportion achieved passing test grades in academic year 2021/22 than in academic year 2018/19.

In English and mathematics as well, a higher proportion of pupils achieved passing test grades. The proportion of pupils with passing grades was 97.0 per cent in the 2021/22 academic year and 95.9 per cent in the 2018/19 academic year. For mathematics, the corresponding proportions were 84.3 per cent and 82.6 per cent, respectively.

The results for school year 9 are presented in Tables 7–10 at the end of this appendix.

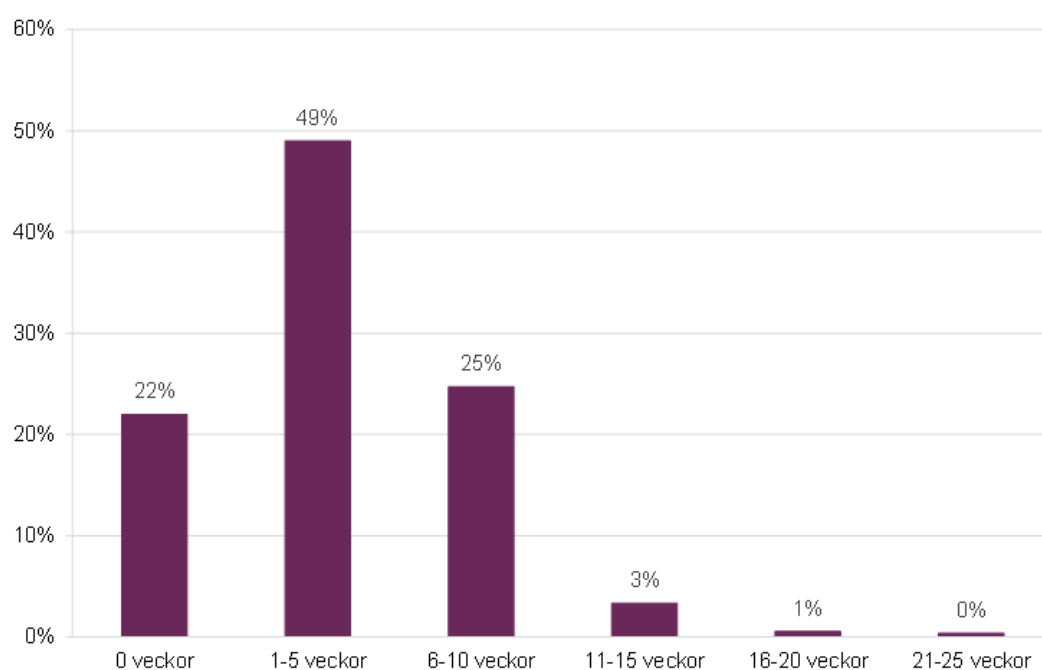


## No correlation between remote teaching and the negative grade development in school year 9

The National Agency for Education has received access to data from the survey of principals on the extent of remote teaching during the pandemic, which Statistics Sweden (SCB) conducted in autumn 2021; see more in Chapter 3 on the survey's results and implementation.<sup>475</sup> The following section reports how grades in school year 9 covary with the amount of remote teaching that the pupils received during the last academic year in compulsory school based on data from the pupil cohort that finished school year 9 in 2021. Data for the number of weeks that the pupils' schools conducted remote teaching has been linked to the grade file for this pupil cohort. The pupils' grades from school year 6 have also been linked to the dataset.

Diagram 13 reports how much remote teaching different pupils received according to the principals. The measurement has been converted to number of full-time weeks during the entire 2020/21 academic year.

**Diagram 13.** The proportion of school year 9 pupils who received remote teaching during the 2020/21 academic year.



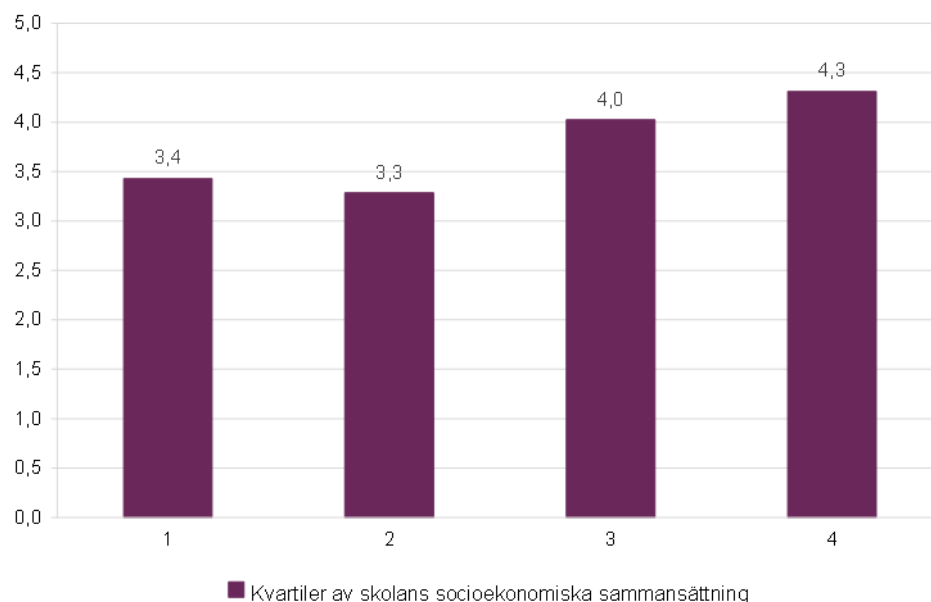
The measurement has been converted to full-time weeks. For some schools, remote teaching was carried out for a longer period of time, but on a part-time basis.

Diagram 13 shows that about half of the pupils received 1–5 weeks of remote teaching (converted to full-time weeks) and about one-fourth received 6–10 weeks. Just over one-fifth of the pupils did not receive any teaching remotely. The proportion of pupils who were taught remotely for more than 10 weeks is very small, less than 5 per cent.

<sup>475</sup> Statistics Sweden (2022). *Fjärr- och distansundervisning i grund- och gymnasieskolan under coronapandemin* [Remote teaching in the compulsory and upper-secondary schools during the coronavirus pandemic].

Diagram 14 shows the average number of full-time remote weeks that the pupils received, broken down by the schools' socio-economic compositions (based on the pupils' parents' average level of education).

**Diagram 14.** Average number of full-time weeks of remote teaching, divided into quartiles of the school's socio-economic composition (based on the parents' level of education). Quartile 1 represents schools with the least favourable socio-economic composition and Quartile 4 the schools with the most favourable socio-economic composition.

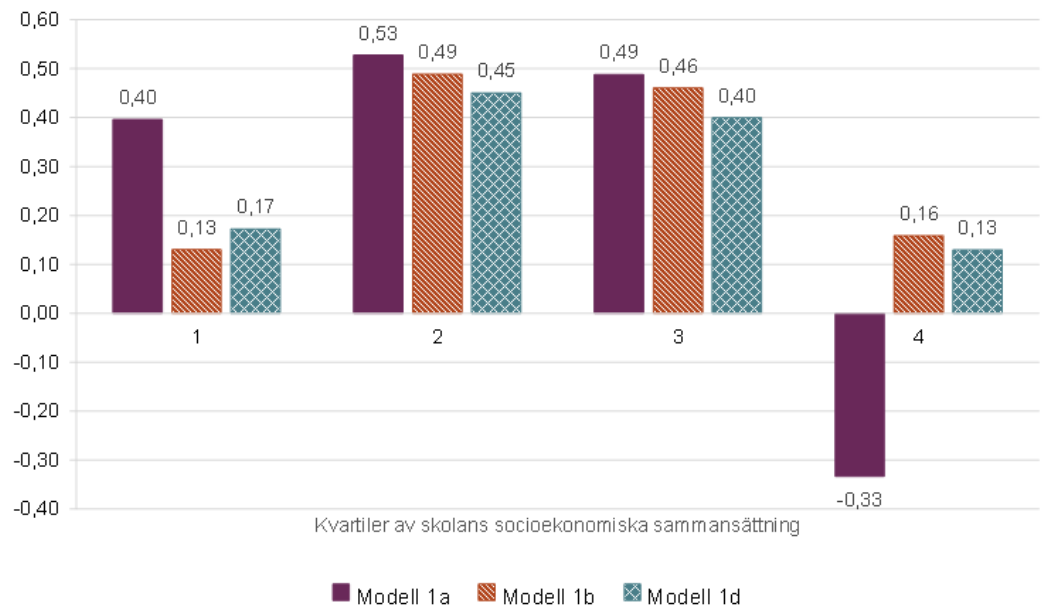


The schools are divided into quartiles, where the 25 per cent of schools with the least favourable socio-economic composition is in Quartile 1 and the 25 per cent of schools with the most socio-economic composition is in Quartile 4 (weighted by school size).

Diagram 14 shows that it has been more common to have remote teaching at schools with a more favourable socio-economic composition, but the differences are not particularly large – there is an average of about a one-week difference between Quartiles 1 and 4.

Diagram 15 reports the results from different regression models in which the effect of remote teaching on final school grades has been estimated. Separate regression models have been estimated for each quartile (four quartiles). Three different models have also been estimated. In all models, the pupils' merit rating results (outcome measure) and the most important explanatory variable is the number of full-time weeks of remote teaching. In the first model (Model 1a), no other control variables are included. In Model 1b, the pupils' grades in school year 6 are controlled for. In Model 1d, pupils' gender, migration background and socio-economic background are also controlled for, as well as whether the pupil attends a municipal or an independent school.

**Diagram 15.** Effect size of number of weeks of remote teaching on pupils' merit rating (not standardised). Divided by quartiles of the schools' socio-economic composition.



Model 1a: Outcome variable: merit rating, control variables: Number of full-time weeks of remote teaching.  
 Model 1b. Outcome variable: merit rating, control variables: Number of full-time weeks of remote teaching, grades school year 6.  
 Model 1d. Outcome variable: merit rating, control variables: Number of full-time weeks of remote teaching, grades school year 6, pupil's gender, pupil's migration background (3 categories = 2 dummy variables), pupil's socio-economic background (edu13), organiser type (org).

Diagram 15 shows that it is only for schools with the most favourable socio-economic composition and for the model without control variables (1a) for which we can see a negative effect of remote teaching on grades, -0.33 merit rating points per full-time week. When the pupils' grades in school year 6 are taken into account, this effect disappears and instead shows a weakly positive effect. For other school quartiles, the effect of remote teaching is rather more positive than negative, regardless of model. It is not possible based on these runs to state whether the effects are statistically significant or not.<sup>476</sup> The most reasonable conclusion is therefore that it is not possible to see any correlation between the pupils' grades and how much remote teaching they have received in the final year of compulsory school. Unfortunately, it is impossible to answer with certainty why such a connection cannot be seen. There may be correlations in reality but which cannot be identified because of too-great uncertainties in the estimates.

It is also important to remember that the number of weeks of remote teaching for most pupils are so few that it is not entirely evident that this would affect their grades.

Furthermore, grades, as previously discussed, are not a complete measure of knowledge. The fact that grades were not affected does not rule out that the

<sup>476</sup> This is due to the fact that the statistics program (SPSS) does not handle how standard errors are affected by weighting based on school size, and also does not take into account that pupils at the same school are not independent observations.

pupils' knowledge development was affected by remote teaching (see more in Chapter 4 of this final report).

Finally, this analysis concerns grades for the 2021 spring semester, which showed an increase. The grades in the 2022 spring semester dropped, and it cannot be ruled out that remote teaching may be one of several explanations for this. As shown in other parts of this report, the pandemic has also had an impact in other ways than only through remote teaching, such as absences, for example.

### **There is a correlation between negative grade developments in school year 9 and the schools' assessments that there has been a loss of knowledge.**

In the following, an analysis is presented of the grade developments in relation to how principals and teachers assess that there has been a loss of knowledge for pupils at their schools. The analysis links the survey responses presented in Chapter 4 in this and previous reports on loss of knowledge<sup>477</sup> at schools during the pandemic.<sup>478</sup>

Much of the survey information applies specifically to the 2021 autumn semester and is thereby not relevant to analyse with grades for pupils who finished school year 9 in the 2021 spring semester. One variable from the teacher survey and one variable from the headteacher survey have been identified, however, which capture potential effects on knowledge development for the pupils who finished compulsory school in 2021. These are:

Teacher survey: *'To what extent do you assess that there was a loss of knowledge among your pupils who finished school year 9 in the 2021 spring semester?'*, response options: not at all (0), or to some or a great extent (1).<sup>479</sup>

Headteacher survey: *'To what extent do you assess that there was a loss of knowledge among the pupils who finished school year 9 in the 2021 spring semester?'*, response options: not at all or don't know (0), or to some or a great extent (1).<sup>480</sup>

The headteacher variable can only assume two values (dummy variable), while the teacher variable when aggregated to school level basically becomes a continuous variable that can be interpreted as 'the proportion of teachers at the school who assess that there was some form of knowledge loss'. The teachers' responses are not broken down by subject but instead become a sort of average of different subjects which can represent different subjects to different extents at different schools depending on which teachers have answered the question.

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<sup>477</sup> In the surveys, loss of knowledge referred to pupils not receiving the knowledge and skills they normally would have due to the pandemic.

<sup>478</sup> We have linked the information to the grade dataset for pupils finishing school year 9 for the years 2017–2021. Because we do not have any information on class affiliation, the information from the teacher surveys was aggregated at school level before being linked to the grade dataset. If a school is in the grade dataset for all five years, the same survey information from teachers and principals will be assigned to all pupils for all five graduation years for that school.

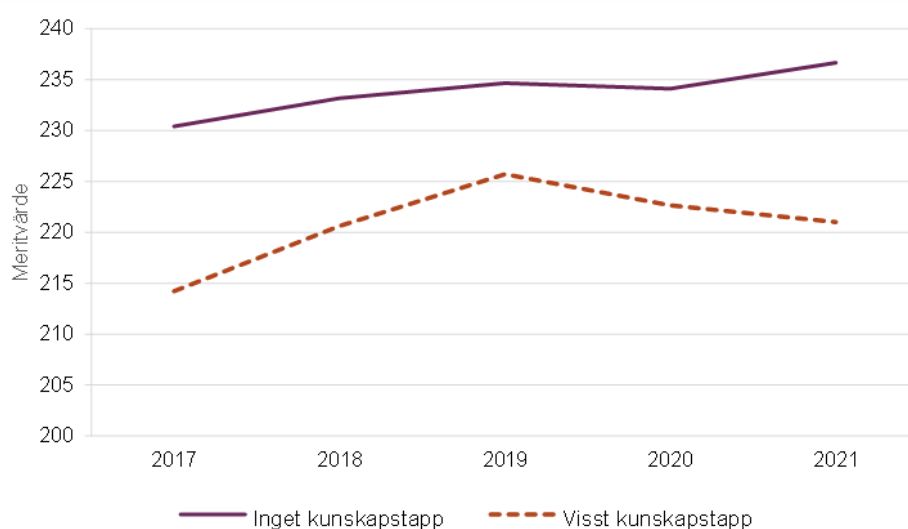
<sup>479</sup> 3,365 teachers from 246 schools answered this question.

<sup>480</sup> 166 principals answered this question.

About one-third (33.4 per cent) of the pupils (whose principals have answered) attend schools in which principals assess that there was a loss of knowledge for the pupils who finished school year 9 in 2021.

Diagram 16 shows an analysis regarding the development of the merit rating for the schools in which the principals assessed that there had been a loss of knowledge and the schools in which the principals had assessed that there had not been a loss of knowledge.

**Diagram 16.** Merit ratings for pupils in schools in which principals assess there was/was not a loss of knowledge in the 2021 spring semester.

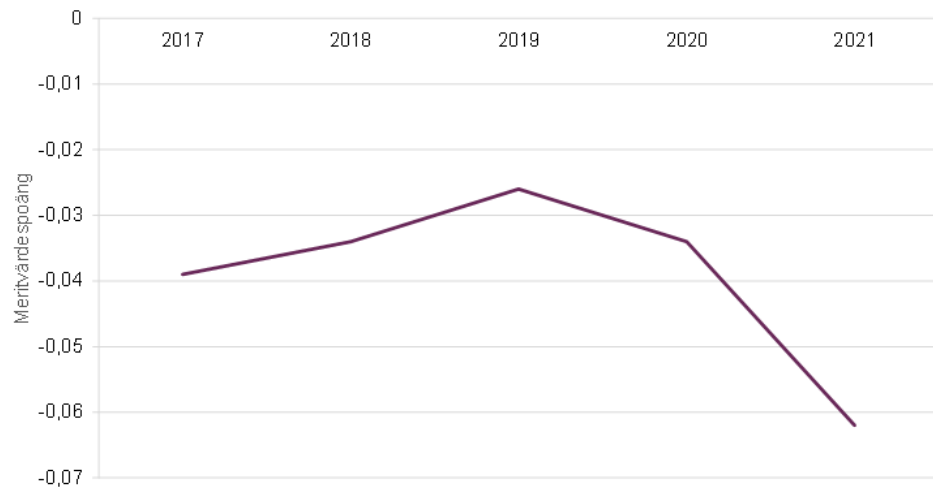


The diagram is based on 11,306 pupils for the year 2021 and between approx. 10,400 and 11,400 pupils for the previous years.

Diagram 16 shows that pupils in schools in which principals assessed that there was a loss of knowledge consistently have lower average merit ratings. In 2020 and 2021, the curve bends downwards, which could be interpreted as grade data to some extent supporting the principals' assessment. The corresponding question for the teachers is presented in Diagram 20.<sup>481</sup>

<sup>481</sup> Because the teachers' answers were aggregated to school level and are thereby basically a continuous variable, we cannot report any average merit rating per group in the same way as in Diagram 1. The correlation between teachers' answers and merit ratings, however, gives us about the same type of information.

**Diagram 17.** Relationship between the teachers' average assessment of whether there was a loss of knowledge and the school's average merit ratings (correlation coefficient).



The diagram is based on 15,206 pupils in year 2021 and between 13,000 and 15,000 pupils for the previous years.

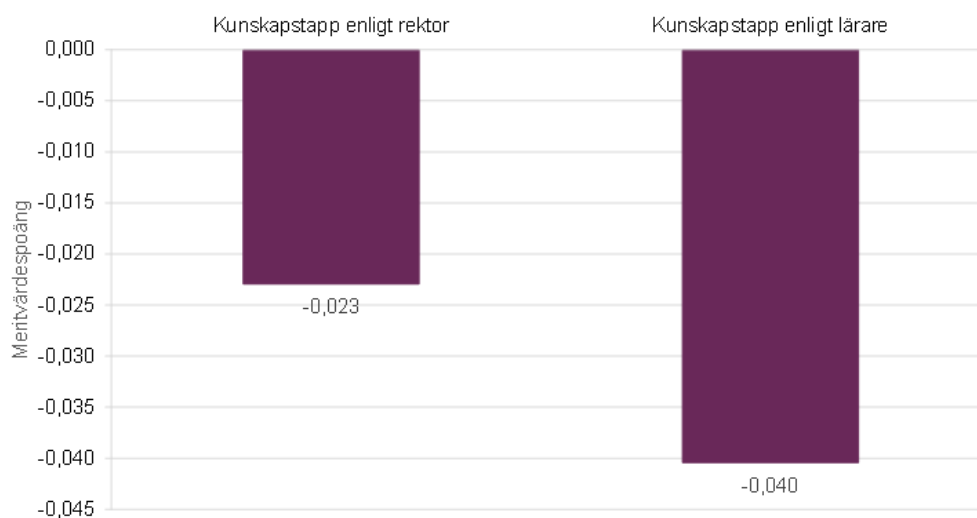
Diagram 17 is more complicated to interpret because the teachers' answers are an average for the school and vary between 0 and 1. The correlation is negative for all years, which can be interpreted as that schools whose teachers assess that there was a loss of knowledge have a lower average level of grades. The most interesting is the change after 2019, and especially what happens in 2021. The increasing negative correlation can be interpreted as that there is a relationship between a less positive grade development and that the teachers assess that there also was a loss of knowledge at the schools. The same tendency is thus found for both the principals' and the teachers' answers.

In the following section, a more advanced analysis is performed of the relationship between grades and survey data by also taking into account several background factors. These factors are: pupil's gender, migration background, parents' average level of education, and pupils' grades in school year 6. The following school-level variables are also included: organiser type (independent or municipal) and the school's average composition based on the parents' level of education (aggregate of same variable on pupil level).

Diagram 18 presents the results from a regression in which both principals' and teachers' assessments of whether there was a loss of knowledge are included in the same model. Only data from 2021 is included in the analysis.<sup>482</sup>

<sup>482</sup> We have also tested using models in which we use data from the years before the pandemic (2017–2021) in the same way as in the previous section. By adding a trend variable, an extra dummy for 2021, and a dummy variable for interaction between 2021 and a dummy for loss of knowledge (only headteacher), we can measure if the grade trend deviates for the pandemic years. We see weakly significant results, but weaker effects than when we analyse 2021 separately and without taking into account previous years (but taking other variables into account).

**Diagram 18.** Effect on merit ratings of principals' and teachers' assessments of whether there was a loss of knowledge (standardised effect size).

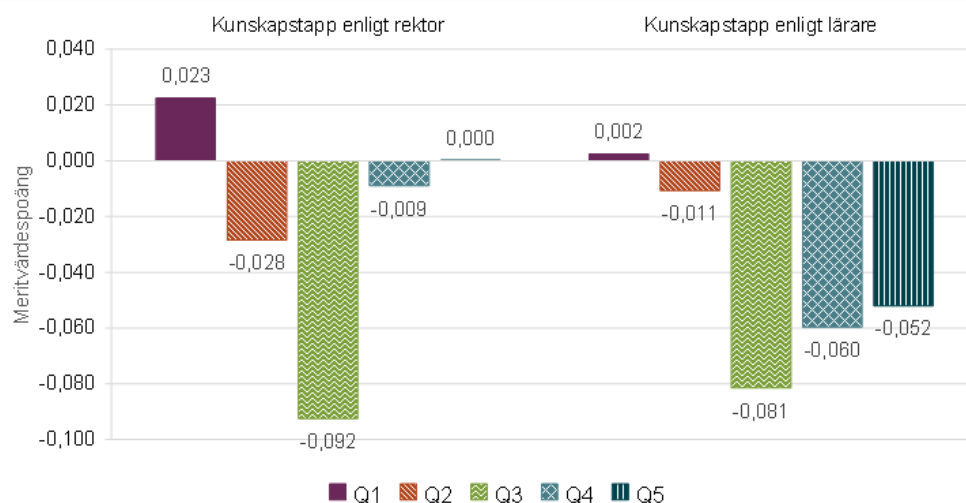


The standardised effect sizes are net effects after controlling for the pupil's gender [sex], migration background [migswe] and [migfor], and the parents' average level of education [edu13]. The pupil's combined grades from school year 6 [mr\_yr6], organiser [org] and the school's socio-economic composition [edu13\_index\_school]. The headteacher's opinion is included as a dummy variable, while the teachers' opinion is included as a continuous variable as it is aggregated to school level from information from individual teachers. Both of the effects are statistically significant with t-values of -3.2 and -5.4, respectively. The regression has not taken into account cluster effects, which means that the standard errors are underestimated. Separate regressions have been done for the principals' and the teachers' assessments that there was a loss of knowledge.

Diagram 18 shows negative effects on pupils' grades for the schools whose principals and teachers assessed that there was a loss of knowledge due to the pandemic. Both of the effects are statistically significant, but the effects according to the teachers are somewhat greater. This could be due to the teachers' answers being aggregated to school level and thus consisting of a continuous variable, while the principals' answers only assume two values.

Diagram 19 shows corresponding results, in which the schools are divided up into so-called quintiles according to the school's socio-economic composition (after the parents' level of education). This means that separate regressions are estimated for the one-fifth of schools that have the least favourable compositions, the next-least favourable one-fifth, and so on.

**Diagram 19.** Effect of merit rating of principals' and of teachers' assessments of whether there was a loss of knowledge (standardised effect size) divided into quintiles (fifths) of the school's socio-economic composition.



See diagram note for Diagram 4. For principals, it is only the effect for Q3 that is statistically significant. For teachers, the effect is statistically significant for Q3, Q4 and Q5.

When the schools are divided up into quintiles by socio-economic composition, the results differ somewhat. Only for Quintile 3 is the effect of the principals' opinion significant on the merit rating. For the teachers' answers, the effect is significant for the three highest quintiles (Q3–Q5).

There is no obvious answer as to why there are non-significant results for the schools with the least favourable socio-economic compositions. It may have to do with the fact that many pupils at these schools are on the border for passing grades and that both teaching and grading during the pandemic have been special for this group of pupils.

In all, however, there is much to suggest that in the schools in which principals and/or teachers assessed that there was some loss of knowledge, this is also reflected to some degree in grade developments.

## Conclusions on grades in school year 9 during the pandemic

As the National Agency for Education has previously stated, grade development is not the same as knowledge development. Starting with the spring semester of 2021, grades increase in most subjects and merit ratings in school year 9. This is largely related to demographic changes. For pupils born in Sweden, the merit rating has remained stagnant between 2017 and 2021, while it has increased for foreign-born pupils. That the grades increased for foreign-born pupils has to do with the fact that this group, as a result of reduced immigration, has on average attended Swedish schools for a longer period of time. In all, a potential impact of the pandemic on grade development is not seen until



2022, when the grades drop in most subjects apart from English and crafts. With the exception of 2016, when grades were significantly affected by the substantial refugee immigration, this is the first time that merit ratings have gone down since the goal-related grading system was introduced in 1998. In 2022, there is a decline for all pupil groups – pupils with Swedish backgrounds, or born in Sweden with foreign backgrounds, as well as for foreign-born pupils. This change means that the grades are largely back to the same level as before the pandemic. For pupils born in Sweden, however, the merit ratings are at a lower level than before the pandemic. The decline for foreign-born pupils is a bit lower, which is connected to the fact that the pupils in this group, due to the decreased immigration, have on average attended Swedish school for more years before they finish school year 9.

There is also a decline in merit ratings for both boys and girls, although the decline is greater for girls. There is a slight decrease in merit rating for girls already in 2021, which is why the gap between boys' and girls' grades decreased for the pupils who attended school during the pandemic. Even the more advanced regression analysis, where pupils' grades in school year 6 and background factors have been taken into account, shows that the girls' relative grade advantage has decreased in 2021 and 2022. Whether this has to do with the pandemic or other factors cannot be answered with certainty.<sup>483</sup> The relatively poorer development for girls is, however, the only grade result for a pupil group that has a clear temporal connection to the pandemic.

The National Agency for Education sees that an increased spread of pupils' results has occurred in that pupils with the lowest grades have had a poorer development in grades. However, this trend began before the pandemic and has continued at about the same pace during the pandemic.

Finally, certain effects of the tests being removed during the pandemic can be seen. This will become clear when 2021 is compared with 2022 when the tests are back. For 2021, it appears that the so-called relative grading increases in the subjects that normally have national tests, i.e., that grades were increasingly set based on the pupil composition at the school. When the tests are back in 2022, grading returns to the 'normal' level of relative grading. The independent schools' grades, in relation to municipal schools, also increase somewhat more in 2021 in the subjects that normally have national tests and then return to a more 'normal' level when the tests are back in 2022.

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<sup>483</sup> No clear conclusions can be drawn between the development in grades and the development in the international knowledge measurements. In PISA 2018, the gap between girls and boys in reading comprehension decreased, was unchanged in mathematics and increased to the benefit of girls in the natural sciences. Swedish National Agency for Education (2019). *PISA 2018. 15-åringars kunskaper i läsförståelse, matematik och naturvetenskap* [15-year-olds' knowledge in reading comprehension, mathematics and natural sciences]. In TIMSS 2019 for school year 8, girls and boys performed at the same level in mathematics, while boys performed significantly better than girls in 2015. In the natural sciences, girls performed significantly better than boys in 2019, while in previous measurements there were no significant differences between the genders. Swedish National Agency for Education (2020). *TIMSS 2019. Svenska grundskoleelevers kunskaper i matematik och naturvetenskap i ett internationellt perspektiv* [TIMSS 2019. Swedish compulsory school pupils' knowledge in mathematics and natural sciences in an international perspective].

## Upper-secondary grades during the pandemic

An analysis of grade developments in the upper-secondary schools up to and including the 2021 spring semester was presented in June 2022.<sup>484</sup> Conclusions from these analyses are presented in the main text of this report. As mentioned in the beginning, the grades from spring semester 2022 are not yet available for analysis, which limits the opportunity to describe developments in the upper-secondary schools during the pandemic. The National Agency for Education therefore does not provide in this appendix any overall assessment of the grade developments in the upper-secondary schools during the pandemic. However, the proportion of pupils who completed upper secondary with a diploma within three years in 2022 is presented below. The results from the 2022 spring semester national tests in the upper-secondary schools are thereafter briefly presented. Finally, correlations between grade developments in spring 2021, the amount of remote teaching, and assessments concerning loss of knowledge are then reported in a similar way as for the compulsory schools.

### Proportion of pupils who start national programmes and graduate within three years largely unchanged between 2022 and 2021

The results reported below regarding pupil completion in the upper-secondary schools in 2022 have not been able to be analysed in the same way as earlier reports in the appendix. Demographic changes, for example, may have affected the results.

The national programmes are designed to be completed within three academic years.<sup>485</sup> Table 3 below presents a time series of the proportion of pupils who started national programmes and received a diploma within three years.

**Tabell 3.** Proportion (in percentage) receiving diplomas within three years among pupils beginning national programmes in 2011–2019.

Graduation year	2014	2015	2016	2017	2018	2019	2020	2021	2022
National programmes	71,6	73,8	74,4	75,4	76,3	76,7	78,3	79,6	79,7
Vocational programmes	66,6	69,9	70,8	71,8	72,0	71,6	74,3	74,9	75,8
Higher education preparatory programmes	74,2	75,7	76,1	77,0	78,1	79,0	80,0	81,7	81,4

Upper-secondary schools, grades, modified Table 3A for academic years 2013/14–2019/20, Table 3A academic year 2021/22.

In 2022, 79.7 per cent of the pupils who started a national programme in autumn 2019 received a diploma within three years. This is a marginal increase of 0.1

<sup>484</sup> Swedish National Agency for Education (2022). *Covid-19-pandemins påverkan på skolväsendet*. [The impact of the COVID-19 pandemic on the education system. Interim Report 5.]

<sup>485</sup> Chapter 16, Section 15 of the Education Act (2010:800).

percentage points over year 2021. Developments differ for the two types of programmes, however.

The proportion of pupils receiving a diploma within three years from higher education preparatory programmes has decreased from 81.7 per cent in 2021 to 81.4 per cent in 2022. This is the first time since the first cohort of pupils left the reformed upper-secondary schools (Gy 11) that the proportion graduating with diplomas within three years has decreased in the higher education preparatory programmes.

The proportion receiving a diploma within three years from vocational programmes has continued to increase, from 74.9 per cent in 2021 to 75.8 per cent in 2022. In both higher education preparatory programmes and vocational programmes, there were great increases in the proportion of pupils who graduated with diplomas in 2020 and 2021 in comparison with the previous year, 2019. This increase has continued in vocational programmes in 2022, while it has levelled off or decreased in higher education preparatory programmes.

If you compare over time with the first cohort that finished the reformed upper-secondary schools (Gy 11), the proportion of pupils who received a diploma within three years increased dramatically in national programmes, from 71.6 per cent in 2014 to 79.7 per cent in 2021.

### **In vocational programmes, the proportion with diplomas increased in 8 of 12 programmes in 2022**

Table 4 below presents a time series of the proportion of pupils who started vocational programmes and received a diploma within three years.

**Tabell 4.** Proportion (in percentage) receiving diplomas within three years among pupils beginning vocational programmes in 2011–2019.

<b>Graduation year</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Vocational programmes</b>	<b>66,6</b>	<b>69,9</b>	<b>70,8</b>	<b>71,8</b>	<b>72,0</b>	<b>71,6</b>	<b>74,3</b>	<b>74,9</b>	<b>75,8</b>
Child and Recreation	63,9	65,8	66,6	70,7	66,3	69,4	68,7	71,6	72,3
Building and Construction	72,3	74,9	73,3	74,1	75,6	74,0	78,9	79,0	78,7
Electricity and Energy	68,2	71,6	74,5	74,5	75,5	77,1	78,5	80,5	81,6
Vehicle and Transport	61,3	65,6	65,2	68,9	70,6	66,7	70,6	70,9	73,5
Trade and Administration	63,6	69,0	67,2	69,8	68,5	68,1	72,7	70,9	72,4
Handicrafts	65,7	68,0	70,9	68,3	69,4	67,4	71,2	74,0	72,3
Hotel and Tourism	68,1	72,2	71,9	69,1	70,9	70,5	72,0	72,0	71,5
Industrial Technology	69,6	72,3	78,7	77,7	80,5	77,7	80,7	79,4	79,9
Natural Resources	65,6	71,0	72,4	71,4	72,7	73,6	75,0	75,4	77,3
Restaurant and Food	62,9	66,2	68,7	71,2	67,2	65,1	69,8	72,7	71,9
Heating, Water, Sanitation and Property Management	71,6	69,0	73,7	73,4	71,5	79,6	77,3	79,4	81,1
Health and Social Care	66,0	68,6	68,1	69,9	71,8	68,8	72,0	69,9	71,2

National recruiting programmes	61,8	74,4	71,0	77,1	71,2	74,1	73,4	77,7	80,9
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Source: Upper-secondary schools, grades, modified Table 3A for academic years 2013/14–2019/20, Table 3A academic year 2020/21.

In the vocational programmes, the proportion with diplomas increased in 8 of 12 programmes in 2022. The largest increase in the proportion with diplomas has occurred in the Vehicle and Transport Programme, where 73.5 per cent of the pupils graduated in 2022, in comparison with 70.9 per cent in 2021 – an increase of 2.6 percentage points. The proportion graduating within three years has also increased relatively strongly in the Natural Resources Programme (1.9 percentage points). The programmes for which graduation has decreased are the Handicrafts, Restaurant and Food, Hotel and Tourism, and Building and Construction programmes. The vocational programme with the largest number of pupils, the Electricity and Energy Programme, is the vocational programme with the highest graduation rate in 2022, 81.6 per cent. It is noteworthy that the graduation rate for the Electricity and Energy Programme has increased every year since 2014. Of the national programmes, it is only the Economics Programme and the Natural Sciences Programme for which a greater proportion of pupils leave upper secondary with a diploma within three years in 2022.

### Proportion of pupils graduating within three years decreased in four of six of the higher education preparatory programmes in 2022

In 2022, the proportion of pupils receiving diplomas within three years decreased in higher education preparatory programmes. In the two previous years, 2020 and 2021, there was a relatively strong increase in the proportion of pupils with diplomas.

**Tabell 5.** Proportion (in percentage) receiving diplomas within three years among pupils beginning higher education preparatory programme in 2011–2019.

Graduation year	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Higher education preparatory programmes</b>	<b>74,2</b>	<b>75,7</b>	<b>76,1</b>	<b>77,0</b>	<b>78,1</b>	<b>79,0</b>	<b>80,0</b>	<b>81,7</b>	<b>81,4</b>
Economics	76,8	78,9	78,0	79,5	80,7	82,5	83,0	84,8	84,6
Aesthetics	68,6	71,9	72,0	72,0	72,9	72,3	74,6	76,1	75,1
Humanities	73,7	71,7	74,2	73,4	73,8	71,7	73,2	75,0	74,9
Natural Sciences	78,6	79,4	78,9	80,1	81,0	81,9	82,6	83,0	83,2
Social Sciences	74,0	74,9	75,4	75,8	77,0	77,8	78,5	81,7	80,5
Technology	70,0	72,3	74,5	75,6	76,2	77,0	77,9	79,2	79,6

Source: Upper-secondary schools, grades, modified Table 3A for academic years 2013/14–2019/20, Table 3A academic year 2020/21.

Table 5 shows that the proportion of pupils graduating within three years decreased in four of six of the higher education preparatory programmes in 2022. The largest change has occurred in the Social Sciences Programme, in which the proportion of pupils receiving diplomas within three years has decreased, from 81.7 per cent in 2020 to 80.5 per cent in 2022, a decrease of 1.3 percentage points. In the Social Sciences Programme, there was a very strong increase during the

pandemic in the proportion of pupils receiving diplomas within three years. The increase was 3.2 percentage points between the years of 2020 and 2021.<sup>486</sup>

Unlike the other higher education preparatory programmes, the proportion of pupils receiving diplomas within three years increased in the Natural Sciences Programme and the Technology Programme in 2022 in comparison with 2021.

### Reasons for changes in graduation diplomas<sup>487</sup>

The National Agency for Education has investigated the reasons behind changes in the proportion of pupils who graduated with diplomas within three years in national programmes. The National Agency for Education has primarily investigated pupils' *merit ratings from compulsory school* and changes in the proportion of pupils who passed courses necessary to graduate, i.e., *courses with passing requirements* as well as programme changes and how far the pupils have come in their studies after three years.

- In the higher education preparatory programmes, a larger proportion of pupils did not receive passing grades in, above all, Swedish 3 in 2022 than in 2021. This is a partial explanation for the decrease in the proportion of pupils receiving diplomas overall in these programmes. A larger proportion also received failing grades in the upper-secondary degree project and Mathematics 1 in 2022 than in 2021, but the change is not as great as in Swedish 3. National tests in Swedish 3 were taken by the pupils in the 2022 graduating class, but were cancelled due to the COVID-19 pandemic for the pupils completing upper-secondary school in 2020 and 2021.
- In the vocational programmes, a larger proportion of the pupils progressed further in their studies and more completed a full national programme year in 2022 than in 2021. That the proportions of both pupils with diplomas and pupils with study certificates increase in 2022 is attributable to fewer pupils changing programmes or interrupting their studies. This is likely an effect of the COVID-19 pandemic. A larger proportion received failing grades in Swedish 1 and their upper-secondary degree projects, which must receive a passing grade for a diploma, which partially explains the increased proportion with study certificates with 2,500 graded points.
- Merit ratings from compulsory schools have increased over time during the 2014–2022 period. However, there are small differences in merit ratings from compulsory school for the pupils who completed upper-secondary school in 2020–2022. Changed merit ratings do not seem to be an explanation for changes in awarded diplomas between 2021 and 2022.

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<sup>486</sup> This is a remarkable increase and the greatest change that has happened in higher education preparatory programmes in the 2014–2021 period, with the exception of the Aesthetics Programme, which when Gy 11 was new, increased by 3.3 percentage points between 2014 and 2015.

<sup>487</sup> An analysis of changes regarding graduation diplomas can be read in their entirety in Swedish National Agency for Education (2022), *Betyg och studieresultat i gymnasieskolan år 2022, PM* [Grades and study results in upper-secondary schools 2022, memorandum].

## National tests in upper-secondary school, 2021/2022 academic year

In the upper-secondary schools as well, national tests were conducted first in spring semester 2022 after having been cancelled in spring 2020 and 2021. However, the results regarding the national tests in the 2022 spring semester presented below have not been analysed in the same ways as earlier reports in the appendix. Demographic changes, for example, may have affected the results.

Of the pupils who took<sup>488</sup> tests in Mathematics 1a and 1b during the 2022 spring semester, there was a significantly greater proportion of pupils who received failing grades in comparison with the years before the pandemic.<sup>489</sup> Most of the pupils who took the tests were in their first year of upper-secondary school and completed compulsory school in the 2021 spring semester. Besides attending compulsory school during the pandemic, the pupils were also the first cohorts that studied according to the new subject syllabi, which is assessed to have affected the distribution of the test results. The changed subject syllabi in mathematics meant, among other things, that some content was moved from Mathematics 2 to Mathematics 1 and that some of the repetition in Mathematics 1 was removed to increase the progression from compulsory school mathematics to Mathematics 1 while simultaneously reducing the progression from Mathematics 1 to Mathematics 2.

Regarding the proportion of pupils with passing test results in Mathematics 2b in the spring semester of 2022, there was instead a higher proportion of pupils who received passing test grades in comparison with spring semester 2019. These pupils studied the courses in Mathematics 1b before the change in subject syllabus come into force. The proportion of pupils who received passing test results in Mathematics 3b also increased between 2019 and 2022. In Mathematics 4, the pupils with passing test grades were at the same level as in the 2019 spring semester.

Regarding the proportion of pupils with passing test results in Swedish 1 and Swedish 3, only small changes of less than one percentage point are seen in comparison with the 2019 spring semester. For Swedish as a Second Language 1 and Swedish as a Second Language 3, there is an increase in the proportion of passing test results, with 4 and 1.4 percentage points, respectively, in comparison with spring semester 2019.<sup>490</sup> One likely reason for this is assessed to be the demographic changes described earlier in this appendix.

In English 5, there was an improvement of a couple of percentage points over spring semester 2019. No major change is seen in English 6.

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<sup>488</sup> The test in Mathematics 1a is mandatory in vocational programmes and the test in Mathematics 1b is mandatory in humanities and aesthetics programmes.

<sup>489</sup> It is not possible to fully compare results over time, as these can differ from year to year in terms of which knowledge areas in the course syllabus that the tests examine. Minor changes in test results should therefore be interpreted with caution.

<sup>490</sup> Tests in Swedish as a second language are not mandatory.

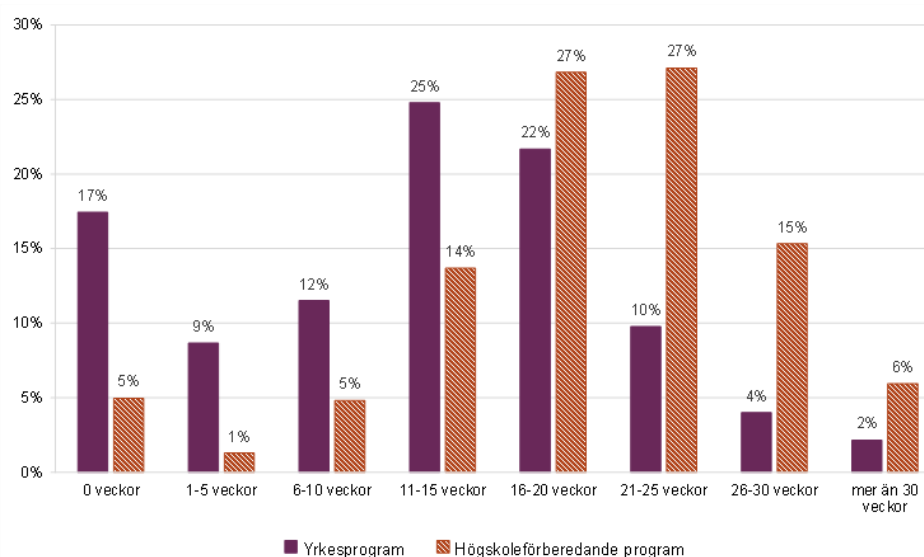
The proportion of pupils who received passing (A–E) test grades in the upper-secondary school 2017–2022 are presented in Table 11 at the end of this appendix.

### No correlation was seen between schools' socio-economic pupil composition and the amount of remote teaching.

This section reports how grades in the upper-secondary schools covary with the amount of remote teaching that the pupils received during the last academic year in compulsory school based on data from the cohort that finished upper secondary in the spring semester of 2021. Just as for school year 9, responses are used from the survey to principals about remote teaching during the pandemic conducted by Statistics Sweden in autumn 2021.<sup>491</sup> Data for the number of weeks that the pupils' schools had remote teaching has been linked to the grade file for this cohort. The pupils' merit ratings from school year 9 have also been linked to the dataset.<sup>492</sup> The pupils are divided into vocational programmes (VP) and higher education preparatory programmes (HEP).

Diagram 20 below reports how much remote teaching different pupils received, according to the principals. The measurement is converted into number of full-time weeks in total for the three semesters that the pupils were affected by the pandemic.

**Diagram 20.** Total proportion of graduating pupils from upper secondary in 2021 who had remote teaching during the last three semesters – spring '20, autumn '20, spring '21 – broken down into vocational (VP) and higher education preparatory (HEP) programmes.



Measurements are converted into full-time weeks and totalled for spring '20, autumn '20 and spring '21. For some schools, remote teaching was carried out for a longer period of time, but on a part-time basis.

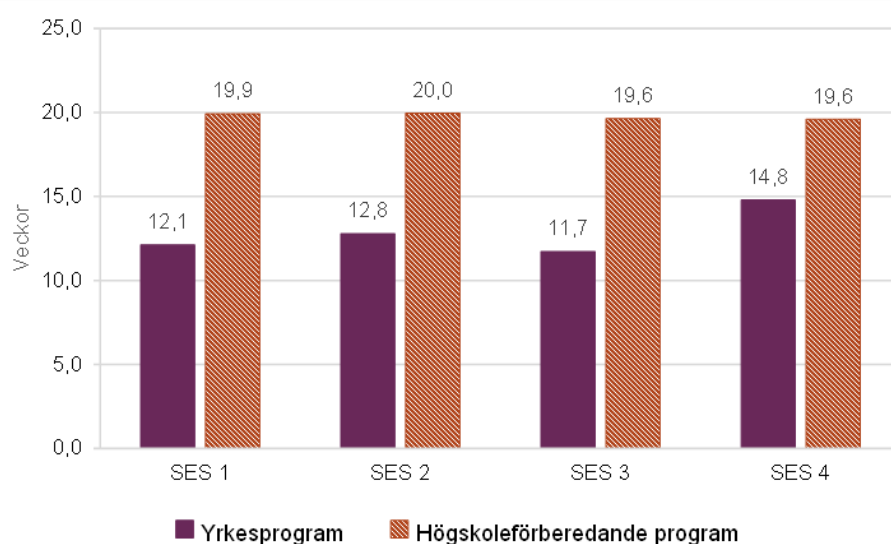
<sup>491</sup> Statistics Sweden (2022). *Fjärr- och distansundervisning i grund- och gymnasieskolan under coronapandemin* [Remote teaching in the compulsory and upper-secondary schools during the coronavirus pandemic].

<sup>492</sup> The analysis only applies to so-called 'normal pupils' from the cohort, i.e., pupils who attended Year 2 in spring 2020 and Year 3 in autumn 2020 and spring 2021 and then received their final school grades. Pupils who do not have merit ratings from compulsory school are also excluded.

Diagram 20 shows that for pupils in the vocational programmes, just under half of the pupils received 11–20 weeks of remote teaching (converted to full-time weeks) during the entire period (three semesters). For pupils in the higher education preparatory programmes, slightly more than half of the pupils received remote teaching for 16–25 weeks. It is more common for pupils in vocational programmes to have not had remote teaching at all – 17 per cent as compared to 5 per cent in the higher education preparatory programmes.

Diagram 21 shows the average number of full-time remote weeks that the pupils received, broken down by the schools' socio-economic pupil compositions (based on the pupils' parents' average level of education).

**Diagram 21.** Average number of full-time weeks with remote teaching divided into quartiles of the school's socio-economic pupil composition. Quartile 1 represents schools with the least favourable socio-economic pupil composition and Quartile 4 the schools with the most favourable socio-economic pupil composition.



The schools are divided into quartiles, where the 25 per cent of schools with the least favourable socio-economic composition is in Quartile 1 and the 25 per cent of schools with the most socio-economic composition is in Quartile 4 (weighted by school size). Note that the quartile division was done before the pupils were divided up into vocational programme (VP) schools and higher education preparatory programme (HEP) schools. This means that there are relatively few vocational programme schools in Quartiles 3 and 4. SEC = Socio-economic pupil composition.

Diagram 21 shows that remote teaching has been very similar for schools with different socio-economic pupil compositions. However, as previously mentioned, pupils in the higher education preparatory programmes have consistently had more remote teaching than pupils in the vocational programmes.<sup>493</sup> Chapter 3 presents further results from Statistics Sweden's survey on remote teaching in the upper-secondary schools.

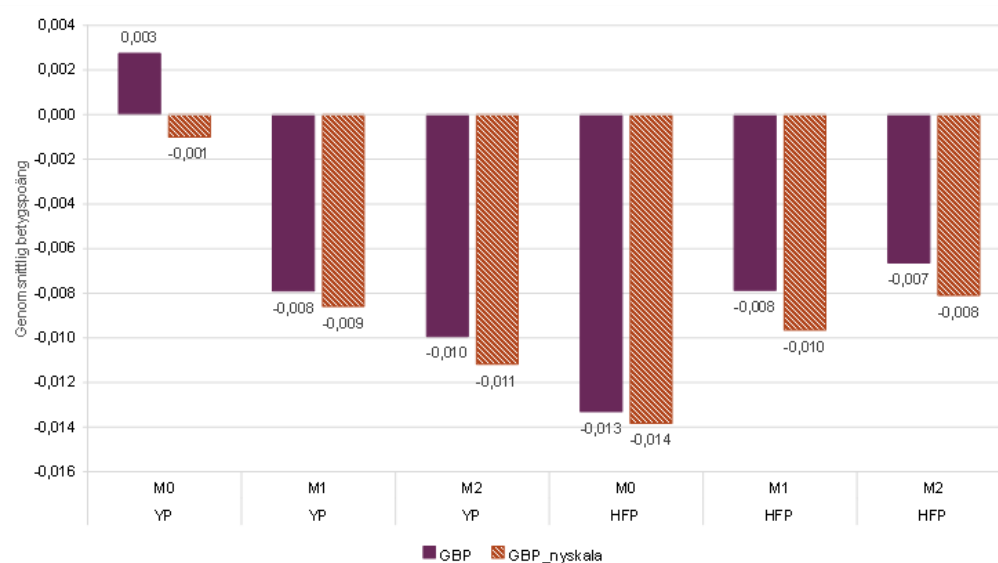
<sup>493</sup> Quartile 4 for pupils in vocational programmes is based on very few schools, so this value should be interpreted with caution.



## Relationship between remote teaching and negative grade development in the upper-secondary schools

Diagram 22 below reports the results from different regression models in which the effect of remote teaching on final school grades has been estimated. Separate regression models have been estimated for pupils in the vocational programmes and for pupils in the higher education preparatory programmes. Three different models have also been estimated. In all models, the pupils' average grade point (AGP) results (outcome measure) and the central explanatory variable is the number of full-time weeks of remote teaching. In the first model (Model 0), no other control variables are included. In Model 1, the pupils' merit ratings in school year 9 are controlled for. In Model 2, pupils' gender, migration background and socio-economic background (at both pupil and school level) are also controlled for, as well as whether the pupil attends a municipal or an independent school.

**Diagram 22.** Effect size of number of weeks of remote teaching on pupils' average grade points (AGP) and average grade points (AGP) new scale (not standardised). Divided into vocational (VP) and higher education preparatory (HEP).



Model 0: Outcome variable: AGP/AGP\_new scale, control variables: Number of full-time weeks of remote teaching.

Model 1: Outcome variable: AGP/AGP\_new scale, control variables: Number of full-time weeks with remote teaching, merit rating school year 9.

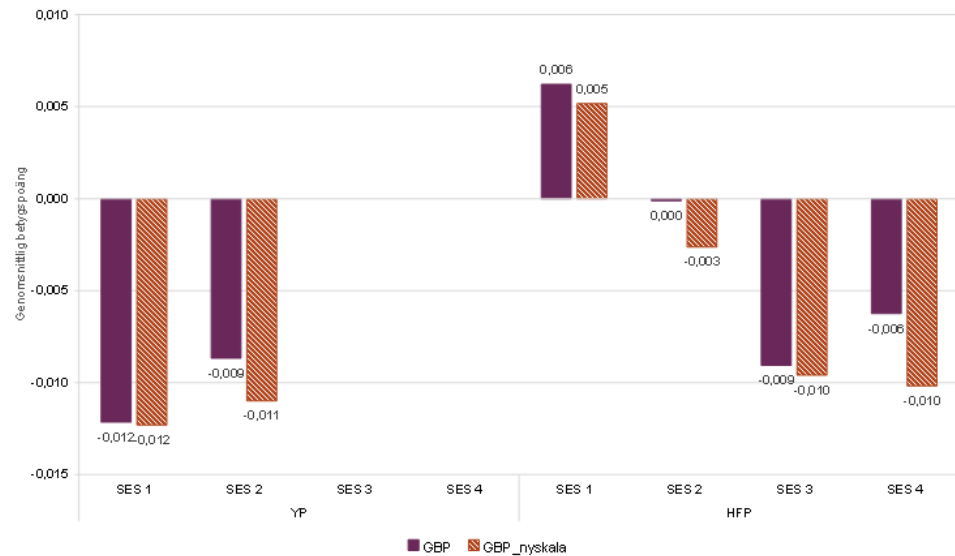
Model 2: Outcome variable: AGP/AGP\_new scale, control variables: Number of full-time weeks with remote teaching, merit rating school year 9, pupil's gender, pupil's migration background (3 categories = 2 dummy variables), pupil's socio-economic background (edu13, one for pupil level and one for school level), organiser type (org).

The overall pattern is that there is a negative effect of the amount of remote teaching, when controlling for the pupils' merit ratings in school year 9 and other relevant background factors. The effects are very small but significant. One example: For pupils in vocational programmes to and for Model 2 (M2) with average grade points as outcome measures, 1 week more of remote teaching

means an average decrease in the average grade points of 0.01 percentage points. The adjusted grade measures show marginally greater effects.<sup>494</sup>

Diagram 23 shows corresponding results, but now also divided into quartiles of the schools' socio-economic pupil composition.

**Diagram 23.** Effect size of number of weeks of remote teaching on pupils' average grade points (AGP) and average grade points (AGP) new scale (not standardised). Divided into quartiles of schools' socio-economic pupil composition and into vocational (VP) and higher education preparatory (HEP) programmes.



The values for VP and SEC 3 and 4 are not reported, as the number of pupils is too small for the results to be reliable.

For vocational programmes, the results for Quartiles 3 and 4 are not presented, as they contain far too few schools or pupils. A total of 67 per cent of the pupils in the vocational programmes attend schools in SEC Quartile 1 and 29 per cent in Quartile 2. For the vocational programmes, clear negative effects of remote teaching can be seen, just as in Diagram 22, but they are not in the same order of magnitude as when they were not broken down by the schools' pupil composition.

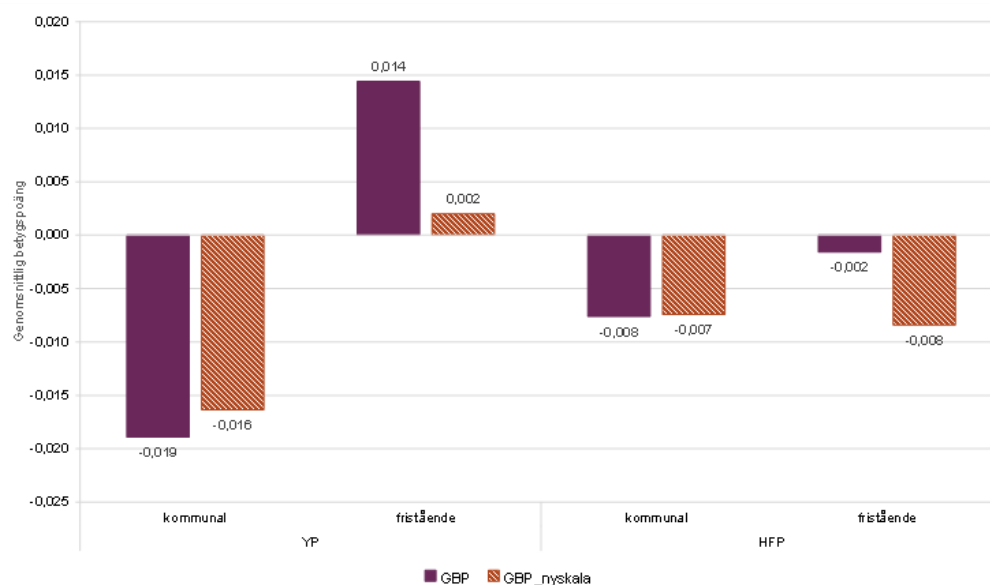
For pupils in the higher education preparatory programmes, the pupils are somewhat more evenly distributed across SEC quartiles. 7, 24, 36 and 32 per cent belong to Quartiles 1, 2, 3 and 4, respectively. Positive effects are seen for Quartile 1, but they are not significant. For Quartile 2, they are basically 0. For Quartiles 3 and 4, i.e., schools with a more favourable socio-economic composition, where most pupils in the higher education preparatory programmes are, we see negative and significant effects, however. The analyses unfortunately do not provide any answer as to why schools (higher education preparatory programmes) with less favourable pupil compositions deviate from the pattern. It may have to do with the fact that many pupils at these schools are on the border

<sup>494</sup> For the adjusted measure for average grade points (AGP), grades have been coded as 7.5–20 (instead of 0–20). The common upper-secondary courses have also been excluded (mat1, eng5, sw1, hist1, ss1, rel1, peh1).

for passing grades and that both teaching and grading during the pandemic have been special for this group of pupils.

Diagram 24 presents corresponding effect sizes broken down by organiser and by vocational versus higher education preparatory programme.

**Diagram 24.** Effect size of number of weeks of remote teaching on pupils' average grade points (AGP) and average grade points (AGP) new scale (not standardised). Divided into municipal versus independent school and into vocational (VP) versus higher education preparatory (HEP) programme.



For pupils in vocational programmes, no clear differences are seen between municipal and independent schools. Municipal schools show negative effects between remote teaching and grade results, while the independent schools instead show positive effects of remote teaching on grade points. For the adjusted grade measures (AGP\_new scale), however, the effect is not significant.

For pupils in the higher education preparatory programmes, the pattern is more similar between municipal and independent schools, at least for the adjusted outcome measures, where negative and significant effects are seen for both. For the conventional AGP measure, there is no significant effect for independent schools in the number of weeks of remote teaching.

It can be noted that there are no major differences in how many weeks of remote teaching were conducted between independent and municipal schools. For pupils in vocational programmes, the independent schools have conducted one week more of remote teaching on average, and for pupils in the higher education preparatory programmes, municipal schools have conducted just under a week more on average.

There is thus a deviating pattern for independent schools with vocational programmes in terms of effects on grades of more remote teaching. If this should

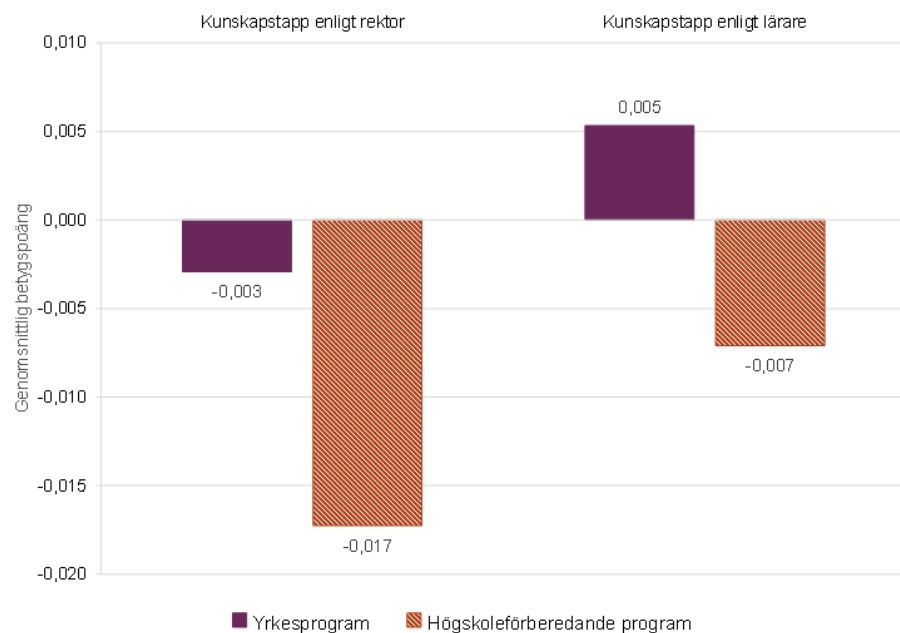
be interpreted as that these schools developed remote teaching methods that are more effective than face-to-face instruction or if it has to do with more generous grading during the pandemic cannot be determined from these data.

### Difficult to show correlation between grade developments in the upper-secondary schools and assessments concerning loss of knowledge

In a similar way as for the compulsory schools, the following reports on whether there was a correlation between the principals' and teachers' assessments of whether there was a loss of knowledge at the schools and the grade developments at the schools. Unfortunately, the uncertainties are even greater for the upper-secondary schools. The upper-secondary schools are more divided up into programmes and it has been difficult to identify which teachers teach in vocational subjects and which in theoretical subjects. The data material does not allow for such divisions, and this means that the results are more uncertain than those for the compulsory schools.

Diagram 25 shows the effects of the principals' and the teachers' assessments of whether there was a loss of knowledge for the pupils who left upper secondary in the 2021 spring semester on the actual average grade points, divided by whether the pupils are in a vocational programme or a higher education preparatory programme.

**Diagram 25.** Effect of the average grade points on principals' and teachers' assessment of whether there was a loss of knowledge (standardised effect size) by vocational programme and higher education preparatory programme.



The standardised effect sizes are net effects after controlling for the pupil's gender [sex], migration background [migfwr] and [migfor], and the parents' average level of education [edu13]. The pupil's combined merit ratings from school year 9 [meritr], organiser [org] and the school's socio-economic pupil composition [edu13\_index\_school]. The headteacher's assessment is included as a dummy variable, while the teachers' assessment is included as a continuous variable as it is aggregated to school level from information from individual teachers. Separate

regressions have been done for the principals' and the teachers' assessments of whether there was a loss of knowledge in each programme type (vocational (VP) or higher education preparatory (HEP)). Only effects for principals and HEP are statistically significant with a t-value of -3.1. The regression has not taken into account cluster effects, which means that the standard errors are underestimated.

Only the effect of grades on principals' assessment of whether there is a loss of knowledge is statistically significant.<sup>495</sup> A likely explanation for similarly clear patterns not being visible as they are for the compulsory schools is that the data material does not allow for a clear connection between teachers' responses and the pupils who are in different programmes or even different programme types.

A likely conclusion is that the difficulty of showing significant correlations for the upper-secondary schools, especially for teachers, has more to do with the nature of the data material than that the relationship would look different in reality in comparison with school year 9.

## Data and description of the analyses of grades in school year 9

### Data

Data on which the analyses are based on are taken from the Swedish National Agency for Education's register of final school grades for school year 9 for the years from 2017 to 2022, e.g., A07a\_2022 for pupils who finished school year 9 in the 2020/2021 academic year.

Some of the analyses are also based on the Swedish National Agency for Education's register of spring semester grades in school year 6 (e.g., A07b\_1718 for pupils who finished school year 6 in spring 2018).

### Exclusions

- All pupils who do not receive grades on the A–F scale have been excluded from these grade files. This means that if the variable [NUMBER] = ' ' (i.e., missing), the pupil is excluded.
- Pupils with Fs in all subjects (and thereby merit rating = 0) are included in these analyses, however, which they are not in the official grade statistics. The values in this report's diagram may deviate somewhat compared to the official grade statistics (which exclude pupils who have F grades in all subjects).
- For the analyses based on both the pupils' school year 6 grades and school year 9 grades, only the pupils who have grades from both years and serial - numbers (which are required to match a pupil's grades in school year 6 and school year 9) are included.

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<sup>495</sup> Even when we run a regression model that also includes the grades for previous years from the same school (to additionally control for systematic differences between schools), the principals' assessments that there was a loss of knowledge show a significantly negative correlation with the grades.

- For the analyses that also divide the data into, for example, foreign background, only pupils with serial numbers are included in the data file.
- For the regression analyses, variables on the parents' level of education are also included, and then only include pupils for whom there is information on parents' education level and other variables that are included in the analysis (foreign background, gender) are included.

## Creation of variables

**Merit ratings school year 9:** We have used the variables [MERITR] and [MERITR\_M2] in the grade file.

**Merit ratings school year 6:** We have calculated a so-called merit rating for school year 6 by adding together the grade points in the corresponding 16 subjects that the merit ratings in school year 9 are based on [mr\_yr6].

**Merit ratings for tested subjects in school year 6 and for school year 9:** We have added together grade points for the 10 subjects (Swedish, mathematics, English, physics, chemistry, biology, geography, history, religion, social studies) that have national tests in both school year 6 and school year 9. To obtain more comparable measures in the diagrams, these measures have then been multiplied by a factor (16/10) so that they are measured on the same scale as the merit ratings for the 16 subjects (0–320 p).

**Merit ratings for non-tested subjects:** We have added up the grade points for the 6 subjects (art, music, crafts, physical education and health, home economics, and engineering and technology) that do not have tests in school year 6 or in school year 9. To obtain more comparable measures in the diagrams, these measures have then been multiplied by a factor (16/6) so that they are measured on the same scale as the merit ratings for the 16 subjects (0–320 p).

**Foreign background:** We have derived a new variable [forback] from the variables [BCNTRY], [MBCNTRY] and [FBCNTRY], where [forback] is coded as:

- = 1 if the pupil was born in Sweden and at least one parent was born in Sweden.
- = 2 if the pupil was born in Sweden and both parents were born in Sweden.
- = 3 if the pupil was born abroad (regardless where the parents were born).

This variable has only been derived for pupils with serial numbers [SERNO]. If data is missing for the pupil's country of birth, we have assumed that the pupil was born abroad (provided the pupil has a serial number). If information is missing on the pupil's mother/father, we have assumed that the pupil's mother/father was born abroad. However, the variable [forback] differs somewhat compared with the existing variable [FOR\_BACKG], which uses the same definitions but which has greater drop-out as no assumptions are made in terms of the pupil's or parents' country of birth if this information is missing.

**Parents' level of education:** Based on the variables [MUNIVA50] and [FUNIVA50], which describe the parents' level of education with 3 digits, we

have first re-coded each parent's level of education to 7 education levels in accordance with the SUN2000\_OLD categorisation.<sup>496</sup> We have then calculated the average of both parents' 7-level education level and then get a 13-level scale (1; 1.5; 2; 2.5;.....6.5; 7), which we call [edu13].

We have then created an index [edu13\_index] by using dummy variables for 12 of the 13 categories in [edu13] in a linear regression with merit ratings as outcome measures. From this estimated regression model, the predicted (expected) values have then been saved and also comprise our index [edu13\_index]. The advantage of creating an index in this way is that it takes into account that [edu13] may not be perfectly linear in that there are even steps in grade outcome for each step in the average level of education. In practice, this has very little significance and only extremely marginally improves the fit of the model.

## Regression analysis

In the section analysing the relationship between grades in school year 9 taking into account both grades in school year 6 as well as other background variables, we use linear regression analysis. The model looks the same whether we use the merit rating or individual grades as outcome measure. Here is how the regression model looks with mathematics grades in school year 9 as outcome measure:

$$[\text{ma\_grade\_point}] = b_0 + b_1 * [\text{ma\_grade\_point\_yr6}] + b_2 * [\text{sex}] + b_3 * [\text{migswe}] + b_4 * [\text{edu13\_index}] + b_5 * [\text{edu13\_index\_school}] + b_6 * [\text{org}]$$

Where:

[ma\_grade\_points] = pupil's grade in mathematics in school year 9 based on grade points (0–20 p).

[ma\_grade\_points\_yr6] = pupil's grade in mathematics in school year 6 (grade points).

[sex] = pupil's gender (0 = boy, 1 = girl).

[migswe] = if the pupil was born in Sweden with two foreign-born parents (code = 1, otherwise 0).

[edu13\_index] = pupil's parents' average level of education in index form (see explanation above).

[edu13\_index\_school] = school's average value based on the pupils' values on [edu13\_index]. The variable thus assumes the same value for all pupils who attend the same school.

[org] = 0 if municipal school, 1 if independent school.

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<sup>496</sup> 1 = Pre-upper-secondary education shorter than 9 years, 2 = Pre-upper-secondary education shorter than 9 years, 3 = Upper-secondary education up to 2 years, 4 = Upper-secondary education 3 years, 5 = Post-secondary education shorter than 3 years, 6 = Post-secondary education 3 years or longer, 7 = Education at the doctoral level.

When we, for example, analyse the effect of the school's socio-economic composition on the merit rating, we look at the *standardised effect size* for the variable [edu13\_index\_school] from the above estimated regression model.

When analysing the effects of organiser type on merit rating, we look at the standardised effect size for the variable [org] from the same estimated regression model.

**Interpretation of the results from the regression analysis:** Because we also use the pupils' grades from school year 6 in the regression model, we effectively control for many of the pupil's conditions not being captured, such as gender, migration background and parents' level of education. This also means that the interpretations of the effects are somewhat different. For example, an estimated positive effect for the variable [sex] means that girls get a higher grade than boys in school year 9, given that they had the same grade in school year 6. In practice, we thus compare only girls and boys who had the same grades in school year 6. One interpretation then is that the girls have had a greater increase in grades between school year 6 and school year 9.



## Descriptive image of data

**Tabell 6.** Descriptive image of the most important data that the report is based on.

		Descriptive Statistics				
Verksamhetsår		N	Minimum	Maximum	Mean	Std. Deviation
2017	Verksamhetsår	102 577	2017	2017	2017	0,0
	MERITV	102 577	0,00	320,00	218,5	69,4
	Löpnnummer för eleven	102 577	2142313	7647212	2960758,5	1098090,5
	utlbak	102 577	1	3	1,4	0,7
	edu13	99 501	1,00	7,00	4,1	1,3
	mv_ak6	94 609	0,00	320,00	205,4	50,7
	Valid N (listwise)	93 349				
2018	Verksamhetsår	107 918	2018	2018	2018	0,0
	MERITV	107 918	0,00	320,00	220,1	69,8
	Löpnnummer för eleven	107 918	2151819	7879883	3058909,3	1266110,4
	utlbak	107 918	1	3	1,4	0,7
	edu13	104 459	1,00	7,00	4,2	1,3
	mv_ak6	100 339	0,00	320,00	208,7	52,3
	Valid N (listwise)	99 025				
2019	Verksamhetsår	111 023	2019	2019	2019	0,0
	MERITV	111 023	0,00	320,00	220,0	70,6
	Löpnnummer för eleven	111 023	2151903	8095958	3702071,2	1117553,6
	utlbak	111 023	1	3	1,4	0,7
	edu13	108 110	1,00	7,00	4,2	1,3
	mv_ak6	104 189	0,00	320,00	210,6	53,7
	Valid N (listwise)	102 790				
2020	Verksamhetsår	113 368	2020	2020	2020	0,0
	MERITV	113 368	0,00	320,00	220,8	71,4
	Löpnnummer för eleven	113 368	2174493	8298287	3888608,1	1096256,9
	utlbak	113 368	1	3	1,4	0,7
	edu13	110 929	1,00	7,00	4,3	1,3
	mv_ak6	107 577	0,00	320,00	209,4	55,3
	Valid N (listwise)	106 191				
2021	Verksamhetsår	114 826	2021	2021	2021	0,0
	MERITV	114 826	0,00	320,00	221,7	70,7
	Löpnnummer för eleven	114 826	2283676	8470472	4128309,5	1166277,5
	utlbak	114 826	1	3	1,4	0,7
	edu13	112 466	1,00	7,00	4,3	1,3
	mv_ak6	109 652	0,00	320,00	209,8	56,8
	Valid N (listwise)	108 148				
2022	Verksamhetsår	119 213	2022	2022	2022	0,0
	MERITV	119 213	0,00	320,00	218,2	72,0
	Löpnnummer för eleven	119 213	3314307	8654174	4660652,2	1059671,3
	utlbak	119 213	1	3	1,4	0,7
	edu13	117 002	1,00	7,00	4,3	1,3
	mv_ak6	113 714	0,00	320,00	209,3	57,6
	Valid N (listwise)	112 353				

## Tables national tests in compulsory school

Revised statistics are presented below in tables of the results from the national tests in school year 9 for academic years 2018/19 and 2021/22. They are presented in a table for each subject: Swedish, Swedish as a second language, English and mathematics. The results are presented for all pupils together, with results for girls and boys, per organiser, parents' level of education and for pupils born abroad. The results are presented in the same way as for the official statistics for national tests on the National Agency for Education's website. For statistics in tables of the results of the national tests in school years 3 and 6, refer to the official statistics.

**Tabell 7.** Proportion (percentage) of pupils who received passing (A–E) test grades and test section grades in Swedish, school year 9, academic years 2018/19 and 2021/22. Total, per background and organiser.

Svenska	Totalt	2018/19		2021/22	
		Antal elever	Andel (%) elever	Antal elever	Andel (%) elever
Provbetyg	Bakgrund				
Delprov	Huvudman				
<b>Provbetyg</b>	<b>Samtliga elever</b>	<b>87 841</b>	<b>96,5</b>	<b>92 097</b>	<b>94,5</b>
	Flickor	43 379	98,4	45 123	97,0
	Pojkar	44 462	94,6	46 974	92,1
	Kommunala skolor	70 066	96,1	72 007	94,0
	Fristående skolor	17 723	97,9	20 055	96,4
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	32 571	93,8	30 207	90,2
	Kort eftergymnasial	15 256	97,0	14 576	94,5
	Lång eftergymnasial	38 839	98,5	46 395	97,4
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	3 346	96,0	3 470	94,0
	Invandrat efter ordinarie skolstart	1 604	90,5	1 992	88,1
	<i>därav</i>				
	Nyinvandrade elever	236	73,3	155	69,0
<b>Tala (delprov A)</b>	<b>Samtliga elever</b>	<b>91 122</b>	<b>97,6</b>	<b>95 987</b>	<b>97,8</b>
	Flickor	44 999	98,6	47 184	98,5
	Pojkar	46 123	96,7	48 803	97,1
	Kommunala skolor	72 477	97,4	75 073	97,6
	Fristående skolor	18 591	98,5	20 879	98,5
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	33 957	96,1	31 724	96,2
	Kort eftergymnasial	15 797	98,0	15 182	97,7
	Lång eftergymnasial	40 146	98,8	48 110	98,9
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	3 458	97,7	3 602	97,5
	Invandrat efter ordinarie skolstart	1 646	94,8	2 039	95,2
	<i>därav</i>				
	Nyinvandrade elever	240	82,5	159	84,3
<b>Läsa (delprov B)</b>	<b>Samtliga elever</b>	<b>91 769</b>	<b>92,0</b>	<b>96 563</b>	<b>81,8</b>
	Flickor	45 302	95,3	47 374	85,8
	Pojkar	46 467	88,7	49 189	77,9
	Kommunala skolor	73 097	91,4	75 573	80,5
	Fristående skolor	18 618	94,3	20 955	86,4
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	34 292	86,4	32 158	70,0
	Kort eftergymnasial	15 905	93,0	15 240	81,2
	Lång eftergymnasial	40 329	96,4	48 182	90,0
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	3 477	90,8	3 612	79,5
	Invandrat efter ordinarie skolstart	1 695	81,5	2 065	69,5
	<i>därav</i>				
	Nyinvandrade elever	261	60,9	165	50,3
<b>Skriva (delprov C)</b>	<b>Samtliga elever</b>	<b>89 827</b>	<b>91,5</b>	<b>95 470</b>	<b>90,1</b>
	Flickor	44 333	95,8	46 826	94,4
	Pojkar	45 494	87,2	48 644	85,8
	Kommunala skolor	71 583	90,7	74 716	89,2
	Fristående skolor	18 190	94,4	20 719	93,2
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	33 512	87,0	31 679	84,8
	Kort eftergymnasial	15 594	91,9	15 069	90,0
	Lång eftergymnasial	39 497	95,2	47 759	93,6
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	3 413	90,6	3 563	89,4
	Invandrat efter ordinarie skolstart	1 670	81,2	2 049	82,1
	<i>därav</i>				
	Nyinvandrade elever	259	64,5	167	62,3

**Tabell 8.** Proportion (percentage) of pupils who received passing (A–E) test grades and test section grades in Swedish as a second language, school year 9, academic years 2018/19 and 2021/22. Total, per background and organiser.

Svenska som andraspråk	Totalt	2018/19		2021/22	
		Antal elever	Andel (%) elever	Antal elever	Andel (%) elever
Provbetyg	Bakgrund				
Delprov	Huvudman				
<b>Provbetyg</b>	<b>Samtliga elever</b>	<b>12 227</b>	<b>67,3</b>	<b>13 806</b>	<b>71,2</b>
	Flickor	5 421	72,5	6 155	75,5
	Pojkar	6 806	63,2	7 651	67,7
	Kommunala skolor	10 659	64,8	11 897	69,3
	Fristående skolor	1 562	84,4	1 900	83,2
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	6 934	66,2	8 185	67,9
	Kort eftergymnasial	1 801	70,6	2 007	76,7
	Lång eftergymnasial	2 166	80,4	2 683	83,1
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	1 304	84,1	1 822	82,1
	Invandrat efter ordinarie skolstart	7 085	56,4	7 658	63,6
	<i>därav</i>				
	Nyinvandrade elever	3 409	43,6	1 731	45,8
<b>Tala (delprov A)</b>	<b>Samtliga elever</b>	<b>12 747</b>	<b>83,1</b>	<b>14 252</b>	<b>87,1</b>
	Flickor	5 614	84,6	6 364	88,2
	Pojkar	7 133	81,9	7 888	86,1
	Kommunala skolor	11 139	81,7	12 281	86,0
	Fristående skolor	1 602	92,8	1 962	93,4
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	7 253	83,1	8 462	85,6
	Kort eftergymnasial	1 856	84,9	2 061	90,6
	Lång eftergymnasial	2 214	89,9	2 750	92,7
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	1 345	94,3	1 873	94,0
	Invandrat efter ordinarie skolstart	7 408	76,6	7 919	82,3
	<i>därav</i>				
	Nyinvandrade elever	3 617	66,1	1 824	66,3
<b>Läsa (delprov B)</b>	<b>Samtliga elever</b>	<b>13 115</b>	<b>51,2</b>	<b>14 586</b>	<b>41,3</b>
	Flickor	5 792	56,9	6 529	44,3
	Pojkar	7 323	46,7	8 057	38,8
	Kommunala skolor	11 488	48,5	12 602	38,5
	Fristående skolor	1 621	70,4	1 975	58,5
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	7 403	49,3	8 635	36,2
	Kort eftergymnasial	1 909	55,6	2 102	46,0
	Lång eftergymnasial	2 273	67,6	2 779	59,4
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	1 361	70,0	1 884	51,9
	Invandrat efter ordinarie skolstart	7 702	39,6	8 157	35,0
	<i>därav</i>				
	Nyinvandrade elever	3 850	28,2	1 965	23,9
<b>Skriva (delprov C)</b>	<b>Samtliga elever</b>	<b>12 854</b>	<b>59,7</b>	<b>14 428</b>	<b>67,9</b>
	Flickor	5 706	66,1	6 436	73,0
	Pojkar	7 148	54,6	7 992	63,7
	Kommunala skolor	11 232	57,1	12 467	66,1
	Fristående skolor	1 616	77,7	1 952	78,9
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	7 263	58,7	8 536	65,4
	Kort eftergymnasial	1 872	63,0	2 084	73,1
	Lång eftergymnasial	2 246	72,8	2 756	78,5
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	1 348	75,8	1 879	78,0
	Invandrat efter ordinarie skolstart	7 523	48,8	8 054	60,3
	<i>därav</i>				
	Nyinvandrade elever	3 742	37,5	1 926	44,1

**Tabell 9.** Proportion (percentage) of pupils who received passing (A–E) test grades and test section grades in English, school year 9, academic years 2018/19 and 2021/22. Total, per background and organiser.

Engelska	Totalt	2018/19		2021/22	
		Antal elever	Andel (%) elever	Antal elever	Andel (%) elever
Provbetyg	Bakgrund				
Delprov	Huvudman				
<b>Provbetyg</b>	<b>Samtliga elever</b>	<b>97 468</b>	<b>95,9</b>	<b>104 853</b>	<b>97,0</b>
	Flickor	47 525	96,2	50 712	97,0
	Pojkar	49 943	95,7	54 141	97,0
	Kommunala skolor	77 890	95,3	82 880	96,5
	Fristående skolor	19 517	98,5	21 930	98,8
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	38 120	93,3	37 514	94,4
	Kort eftergymnasial	16 748	97,0	16 432	97,9
	Lång eftergymnasial	40 255	98,9	48 975	99,1
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	4 554	97,1	5 239	97,2
	Invandrat efter ordinarie skolstart	8 102	77,9	9 366	85,4
	<i>därav</i>				
	Nyinvandrade elever	3 354	68,0	2 014	77,5
<b>Tala (delprov A)</b>	<b>Samtliga elever</b>	<b>103 859</b>	<b>96,5</b>	<b>110 949</b>	<b>97,2</b>
	Flickor	50 589	96,4	53 813	96,9
	Pojkar	53 270	96,6	57 136	97,4
	Kommunala skolor	83 454	96,0	87 902	96,7
	Fristående skolor	20 344	98,5	23 003	98,8
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	41 050	94,2	40 343	94,8
	Kort eftergymnasial	17 745	97,6	17 355	97,9
	Lång eftergymnasial	42 472	99,1	51 160	99,1
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	4 818	97,6	5 507	98,1
	Invandrat efter ordinarie skolstart	8 848	81,7	10 029	87,2
	<i>därav</i>				
	Nyinvandrade elever	3 745	72,9	2 178	79,2
<b>Läsa (delprov B)</b>	<b>Samtliga elever</b>	<b>102 809</b>	<b>92,0</b>	<b>109 441</b>	<b>94,5</b>
	Flickor	50 070	92,1	53 044	94,3
	Pojkar	52 739	92,0	56 397	94,6
	Kommunala skolor	82 620	90,9	86 705	93,6
	Fristående skolor	20 128	96,5	22 693	97,6
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	40 497	87,2	39 654	89,9
	Kort eftergymnasial	17 618	93,7	17 096	95,9
	Lång eftergymnasial	42 046	97,4	50 534	98,2
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	4 755	92,9	5 417	94,6
	Invandrat efter ordinarie skolstart	8 958	64,4	10 099	75,8
	<i>därav</i>				
	Nyinvandrade elever	3 924	51,9	2 268	67,0
<b>Skriva (delprov C)</b>	<b>Samtliga elever</b>	<b>100 264</b>	<b>94,2</b>	<b>108 505</b>	<b>95,0</b>
	Flickor	48 858	95,2	52 529	95,7
	Pojkar	51 406	93,3	55 976	94,4
	Kommunala skolor	80 312	93,4	85 986	94,3
	Fristående skolor	19 891	97,4	22 476	97,8
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	39 535	90,8	39 163	91,3
	Kort eftergymnasial	17 155	95,6	16 975	96,1
	Lång eftergymnasial	41 011	98,1	50 257	98,0
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	4 668	95,5	5 377	95,1
	Invandrat efter ordinarie skolstart	8 708	73,9	9 867	81,1
	<i>därav</i>				
	Nyinvandrade elever	3 757	63,9	2 220	73,6

**Tabell 10.** Proportion (percentage) of pupils who received passing (A–E) test grades and test section grades in mathematics, school year 9, academic years 2018/19 and 2021/22. Total, per background and organiser.

Matematik	Totalt	2018/19		2021/22	
		Antal elever	Andel (%) elever	Antal elever	Andel (%) elever
Provbetyg	Bakgrund				
Delprov	Huvudman				
<b>Provbetyg</b>	<b>Samtliga elever</b>	<b>100 401</b>	<b>82,6</b>	<b>104 247</b>	<b>84,3</b>
	Flickor	48 795	82,7	50 197	84,2
	Pojkar	51 606	82,5	54 050	84,4
	Kommunala skolor	80 765	81,2	82 768	82,9
	Fristående skolor	19 579	88,4	21 436	89,6
	<i>Föräldrarnas högsta utbildning</i>				
	Förgymnasial och gymnasial utbildning	39 174	72,1	37 387	73,5
	Kort eftergymnasial	17 167	85,7	16 285	84,9
	Lång eftergymnasial	41 480	92,2	48 626	93,0
	<i>Elever födda utomlands som</i>				
	Invandrat före ordinarie skolstart	4 609	75,5	5 192	79,2
	Invandrat efter ordinarie skolstart	9 022	62,8	9 733	68,4
	<i>därav</i>				
	Nyinvandrade elever	4 055	60,3	2 197	62,4

## Tables national tests in upper-secondary school

Revised statistics are presented below in tables of the results from the national tests in upper-secondary school for academic years 2016/17 through 2021/22. They are presented in a table for each course.

**Tabell 11.** Proportion (percentage) of pupils who received passing (A–E) test grades in upper-secondary school 2017–2022.

Course	Year	Number of pupils with test grades	Proportion of pupils with F grades (%)	Proportion of pupils with E grades (%)	Proportion of pupils with D grades (%)	Proportion of pupils with C grades (%)	Proportion of pupils with B grades (%)	Proportion of pupils with A grades (%)
Mathematics 1A	2022	25027	46,9	39,7	7,8	4,0	1,1	0,5
	2019	25310	24,9	47,0	18,0	7,9	1,7	0,5
	2018	14292	36,9	40,6	13,0	6,5	2,3	0,8
	2017	15718	38,4	39,3	14,3	5,9	1,7	0,4
Mathematics 1B	2022	5788	36,1	33,7	13,6	11,1	3,8	1,6
	2019	6034	14,2	36,3	19,7	17,5	7,5	4,8
	2018	2921	18,0	36,3	21,2	15,5	6,0	2,9
	2017	16914	17,2	32,6	21,3	18,3	7,4	3,3
Mathematics 2B	2022	20389	38,2	35,8	14,3	8,1	2,4	1,1
	2019	17030	50,4	29,0	11,5	7,5	1,5	0,2
	2018	5998	50,2	32,3	9,8	5,4	1,9	0,4
	2017	10189	48,9	31,1	11,7	5,9	1,9	0,6
Mathematics 3B	2022	6730	35,0	30,2	15,8	14,4	2,6	1,9

Course	Year	Number of pupils with test grades	Proportion of pupils with F grades (%)	Proportion of pupils with E grades (%)	Proportion of pupils with D grades (%)	Proportion of pupils with C grades (%)	Proportion of pupils with B grades (%)	Proportion of pupils with A grades (%)
	2019	5920	40,5	30,6	15,1	11,3	1,6	0,9
	2018	5467	33,3	36,3	15,3	10,8	3,2	1,1
	2017	3616	31,2	34,3	15,7	12,1	4,7	2
Mathematics 3C	2022	6220	22,0	26,9	20,7	20,1	4,9	5,4
	2019	5820	30,0	27,4	18,2	16,9	4,1	3,3
	2018	5820	30,0	27,4	18,2	16,9	4,1	3,3
	2017	4362	19,1	22,7	16,3	19,4	11,4	11
Mathematics 4	2022	7285	15,4	18,1	14,5	20,2	15,7	16,1
	2019	6788	13,9	15,9	13,9	20,6	17,4	18,4
	2018	6489	16,3	19,9	16,4	20,1	14,2	13,1
	2017	2773	22,6	22,2	15,1	18,6	11,6	9,8
English 5	2022	24496	7,4	30,6	18,2	30,0	10,2	3,6
	2019	23861	9,7	31,8	17,9	27,1	9,8	3,7
	2018	24467	9,1	30,0	24,9	23,7	9,0	3,3
	2017	77185	3,7	14,6	19,6	31,1	19,8	11,2
English 6	2022	53722	2,7	14,0	14,2	34,5	21,5	13,1
	2019	51746	2,0	13,7	14,8	33,9	21,7	14,0
	2018	48455	2,3	12,3	20,2	30,6	21,0	13,6
	2017	57363	3,2	14,2	20,9	30,3	19	12,5
Swedish 1	2022	22015	13,8	46,6	23,1	12,4	3,5	0,7
	2019	21517	12,6	43,3	23,8	14,7	4,7	0,9
	2018	22329	11,9	44,7	24,0	14,7	3,8	0,8
	2017	70562	5,6	25,3	22,7	24,9	15,4	6,2
Swedish as a Second Language 1	2022	2888	36,8	42,8	14,5	5,1	..	..
	2019	4233	40,2	39,3	15,3	4,5	..	..
	2018	3938	31,8	46,2	16,1	5,1	..	..
	2017	7241	19	37,6	21,7	15,2	5,5	1
Swedish 3	2022	43391	3,7	15,1	23,5	26,2	21,0	10,5
	2019	39731	4,4	15,8	23,8	26,2	20,1	9,7
	2018	36860	4,5	16,8	24,1	25,4	19,7	9,4
	2017	44432	5,8	18,4	23,1	24,6	18,9	9,2
	2022	4566	8,0	21,9	25,7	21,5	14,6	8,2

Course	Year	Number of pupils with test grades	Proportion of pupils with F grades (%)	Proportion of pupils with E grades (%)	Proportion of pupils with D grades (%)	Proportion of pupils with C grades (%)	Proportion of pupils with B grades (%)	Proportion of pupils with A grades (%)
Swedish as a Second Language 3	2019	3558	9,4	22,5	24,6	22,0	14,0	7,5
	2018	3021	9,8	21,0	26,7	21,7	14,6	6,2
	2017	3265	12,4	25,1	23,7	20,5	12,7	5,5

The Swedish National Agency for Education was tasked by the Government to monitor the pandemic's consequences for the education system and provide both short- and long-term support in the handling of the pandemic. This final report provides the National Agency for Education's general view of the pandemic's impact and recommendations for work going forward. The final report also provides analyses and insights that are important for future crises, as well as timelines for the rules and regulations that applied for the education system during the pandemic.

