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# **THE IMPACT OF THE COVID-19 PANDEMIC IN LUXEMBOURG IN 2021: CHILDREN AGED 6-16 SHARE THEIR SUBJECTIVE WELL-BEING AND EXPERIENCES.**

First findings of the project COVID-Kids II

The impact of the Covid-19 pandemic in Luxembourg in 2021: Children aged 6-16 share their subjective well-being and experiences. First findings of the project COVID-Kids II

Policy recommendations in this report: UNICEF Luxembourg

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Please cite this report as:

Kirsch, C., Vaiouli, P., Bebić-Crestany, D., Andreoli, F. D., Peluso, E. & Hauffels, I. (2022) The impact of the Covid-19 pandemic in Luxembourg in 2021: Children aged 6-16 share their subjective well-being and experiences. First findings of the project COVID-Kids II. Esch-sur-Alzette: University of Luxembourg.

Design & Layout: KiwiMedia, Windhof

Photos: The images published in this report come from UNICEF

Printed in Luxembourg

This report is also available in French

The production of this report was funded by the *Oeuvre Nationale de Secours Grande-Duchesse Charlotte*.

Electronic preprints and postprints of scientific productions in relation to this report can be obtained from <https://covid-kids.uni.lu>

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# — Forward



For the second consecutive year, the coronavirus continues to keep the world on its toes and the various health measures enacted to curb the pandemic are causing profound changes in the way we live together in our societies.

Although children and youths appear to be less afflicted by the adverse effects of the virus, they nevertheless belong to the segment of the population most affected by the sanitary measures and the indirect impact of the pandemic. As early as 2020, their experiences, specifically their negative emotions and anxieties, were highlighted in the COVID-Kids I study carried out by researchers from the Faculty of Human Sciences at the University of Luxembourg. These alarming findings give evidence of the adverse impact on both the mental and physical well-being of children and young people and have therefore led the Œuvre to react immediately by getting together all the stakeholders involved and implementing an action plan designed to prevent these aforementioned consequences. As a result, a call for projects was launched which succeeded in raising the awareness of civil society generating some 80 projects in line with this approach. Around forty projects meeting the set criteria received financial support from our institution for a total amount of roughly 2.9 million Euros.

*Œuvre Nationale de Secours Grande-Duchesse Charlotte* had no hesitation therefore in financially supporting the researchers at the University of Luxembourg for conducting this second study particularly because it is a logical follow-up of COVID-Kids I which had the great merit of being both the first and a highly timely study that addressed the issue of how children and young people are coping with the situation and how it affects their well-being.

One part of the study COVID-Kids II was carried out in 2021 with children and young people aged 6 to 16 years. It focused on the changes of their subjective well-being during the second year of the pandemic. As in its first version, the study features important lessons about the experienced effects of the pandemic on those who are particularly affected by the health measures put in place by the public authorities. Based on quantitative and qualitative methods used to explore children's and young people's experiences and perceptions, this scientific report provides evidence of the welfare level of a particularly vulnerable section of our population.

Through the successful combination of children's quotes and statistics, this report allows all those involved in the care of this young population (e.g. parents, teachers, educators, other members of society) on the one hand, and policymakers involved in managing this crisis and safeguarding public health, on the other, to become aware of the young people's feelings, anxieties and negative emotions and learn about their perceptions of the pandemic and their experiences of the social and physical distancing measures put in place.

Let me conclude by warmly congratulating the authors for this most valuable and essential initiative which I sincerely hope will generate a high impact within our society.

**Pierre BLEY**

President, Œuvre Nationale de Secours Grande-Duchesse Charlotte

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## — Acknowledgements

I would like to wholeheartedly thank a number of people and organizations without whom this study and report would not have been possible. First of all, I would like to express our gratitude to all children for participating in the online or pen-and-paper survey and the interviews, as well as their parents for supporting us and assisting their children when necessary.

I wish to express my sincere thanks to the *Œuvre Nationale de Secours Grande-Duchesse Charlotte* for their generous funding. Thanks to their support, the COVID-Kids II team was able to hire three postdoctoral researchers, ensure the help of Thierry Kruten and Eric Guastalli from the Luxembourg Institute of Socio-Economic Research (LISER) which implemented the online survey, and finance this report. Many thanks also to Rachid Boualam and Thierry Heck (University of Luxembourg) for their help with the pen-and-paper questionnaires. I would also like to thank Dr. Pascale Engel (University of Luxembourg) for her support and technical assistance and Dr. Cyril Wealer (University of Luxembourg) for his technical support during the project.

The dissemination of the information about the online and pen-and-paper survey would not have been possible without the assistance of many colleagues, friends, private schools and organizations. My special thanks go to UNICEF, CARITAS, Croix-Rouge, Elisabeth, OKaJu and the private schools which I am unable to name for reasons of confidentiality.

I am indebted to Ms Anne-Sophie Genevois (LISER) who did an excellent job cleaning the data and providing us with the demographics of the sample. She was also always available and ready to support. The team is also obliged to Gilbert Pregno (CCDH), Charel Schmit (OKaJu), Dick Moore (mental health instructor), Dr. Pascale Engel de Abreu, Dr. Sascha Neumann (University of Tübingen) and Isabelle Hauffels (UNICEF), who discussed the results of the findings with us in several meetings. I would also like to thank Dr. Džoen Bebić-Crestany et Anne-Sophie Genevois for their translations and the proof-reading, Antony Warde-Jones and Jessica Domingues Mouro for the final proof-reading of the report and Dr. Samuel Greiff for his comments on an earlier version.

I would like to express my gratitude to the team who worked very hard and with great pleasure and pride. Dr. Džoen Bebić-Crestany (University of Luxembourg) carried out and analysed the interviews with me while Dr. Potheini Vaiouli (University of Luxembourg) analysed the quantitative data presented in Sections 1-5. Džoen and Potheini also co-wrote the report with me. Ms Laura Colucci (University of Luxembourg) and Ms Merrin Bydder (University of Luxembourg) helped me with the analysis of the open questions of the survey and identified some relevant texts for the literature review. Further thanks go to Dr. Eugenio Peluso, Dr. Francesco Andreoli and Vincenzo Prete (University of Verona) as well as to Isabelle Hauffels (UNICEF) for writing Section 6 and the recommendations, respectively.

Finally, I would like to thank my husband and my two sons for their support and patience during the challenging times when I was working nonstop on the project COVID-Kids II.

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## — Executive summary

This section summarizes the key findings of the study COVID-Kids II<sup>1</sup> on child well-being and the children's experiences during the second year of the Coronavirus pandemic, and outlines a key recommendation. The study examines subjective child well-being

and experiences of children aged 6-16 via questionnaires (621 children) and interviews (22 children). The findings presented here are based on quantitative and qualitative data collected between June and July 2021 and September and October 2021.

### Key findings

#### Children's satisfaction rates

→ The Coronavirus pandemic affects the general life satisfaction of many children. Of the younger children (aged 6-11), 60% reported that their life satisfaction was the same as before the pandemic but 31% indicated that it had dropped. By contrast, only 47% of the older children

(aged 12-16) reported that it was the same and 43% that it had decreased.

→ Children felt constrained by the social and physical distance measures and many perceived that their social lives had suffered as a result. The qualitative

1 The results of the project COVID-Kids I have shown that children aged 6-16 years reported a reduction in their life satisfaction and emotional well-being at the beginning of the pandemic (Kirsch et al., 2020a).

data also showed that the children felt better protected as a result of distancing, sanitizing, testing and the wearing of masks. While 78% of the younger children were satisfied or very satisfied with their health and 61% with their safety, only 33% and 47% of the older participants resp., were satisfied or very satisfied with these aspects of their lives.

- Children seemed largely satisfied with school: 95% of the younger children and 75% of the older ones were satisfied or very satisfied with their lives at school.
- Satisfaction with the ways that adults listened is important for children's well-being: 54% of the younger and 33% of the older children were satisfied or very satisfied with this aspect of their lives.

### Negative emotions and worries

- Children reported having negative emotions and worries frequently or very frequently during the pandemic. Of the younger children, 16% reported negative feelings and 18% worrisome thoughts. These percentages increased to 36% and 22% in the answers of the older children.
- Children had experienced illness owing to Covid-19: 16% of the younger children and 26% of the older ones reported that they themselves or a household member had been ill owing to Covid-19. Of the young

children, 19% and of the older children 36% mentioned being worried often or very often of falling ill. In the interviews, half of the children indicated that they did not worry. There were multiple reasons for this: recovery from Covid-19; the fact that adults around them were vaccinated; their abiding strictly by the Covid rules; and the support of their families.

- Older children and girls reported negative feelings and worries significantly more often than did younger children and boys.

### Leisure time activities

- Children spent their free-time on a range of activities but appear to have spent more free time on less productive activities such as relaxing and using their digital devices. On average, the young children spent 2 hours and the older 3.5

hours per day on electronic devices for leisure. Of the older children, 75% agreed or strongly agreed that these devices helped them feel better during the pandemic as it allowed them to socialize, relax and be distracted.

### School experiences

- Absence rates were high: 43% of the younger children and 55% of the older missed more than 4 weeks.
- Going to school is important for children: they agreed that they learned more effectively at school than at home. The majority of the younger children (55%) and almost all older ones (96%) reported that they learned less when they could not go to school owing to school closure

or quarantine. Furthermore, all children found their work more understandable, interesting and useful when they were able to attend.

- The qualitative data showed that children who disliked distance education reported technical issues, the long hours on screens as well as the loss of attention and motivation. Children who liked learning from home referred mainly to



comfort such as the opportunity to sleep in, no commuting and more time to relax and spend with the family.

- Parents supported children in a range of ways when they had to learn from home. These include access to materials (reported by 80% of the younger and 40% of the older children) and organisation of their schedules (reported by 70% of the younger and 26% of the older children). Older children sought less parental support than the younger ones, possibly owing to their greater independence.
- The teachers supported children in various ways, for instance by frequently scheduling live lessons, as indicated by 71% of the younger children and 86%

of the older. The vast majority of the teachers were reported to be frequently checking work. About a third of the young children (36%) and a quarter of the older ones (25%) indicated that teachers enquired about their well-being.

- The older children but not the younger, reported doing less well at school during the pandemic. Almost half of the children (46%) reported doing well or very well at school before the pandemic compared to 39% during the pandemic. The older children were also more worried of falling behind. While 17% of the younger children indicated that they were frequently or very frequently worried about performing less well, 46% of the older children did so.

### Correlates of school satisfaction, negative emotions and worries

- Significant relationships emerged between factors relating to the children's emotional well-being and their experiences during the second year of the Coronavirus pandemic. Important correlates of emotional well-being

during the pandemic were the difficulty, the quantity and the content of the schoolwork during school closures; the reported levels of school satisfaction, and the satisfaction with the way adults listened to children.

## Key recommendation from UNICEF

The children's experiences during the pandemic highlight the importance of resilience. As we move forward and in the light of the rising Covid cases fuelled by Omicron (Santé Publique, 2022), it is of critical importance that we build and cultivate the children's resilience.

# — Introduction

The children's voice is largely absent during this pandemic despite the Convention on the Rights of the Child and despite the importance of their participation and subjective well-being being recognized as essential to achieving sustainable development. The researchers of the project COVID-Kids II listened to children and provide some insights into the impact of this long pandemic on their well-being and experiences.

In March 2020, many governments took measures to contain the spread of severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) that causes Covid-19. The results of the project COVID-Kids I have shown that children aged 6-16 years in Luxembourg reported a reduction in their life satisfaction and emotional well-being at the beginning of the pandemic (Engel de Abreu et al., 2021; Kirsch et al., 2020a). Their well-being and range of experiences varied with their age, gender and socio-economic status. In addition, not everybody coped well with the distance education put in place in the Spring of 2020. The children's contact time with teachers and the time spent on schoolwork varied widely. The perceived difficulty, quantity and the content of their schoolwork influenced school satisfaction, which suffered (Kirsch et al., 2021a). While it is clear that distance learning, put in place during the first wave of the pandemic in 2020, has its limitations, is highly teacher-centred and does not reach all children, its effects on children's learning and development need to be studied in order to ensure that children can reach their full potential and develop their capacities. Research studies have shown that the pandemic hit the most disadvantaged children and adolescents hardest, exacerbating existing inequalities. They had less access to financial, medical and educational resources and support structures (e.g. family, teachers, therapists, doctors), were more prone to mental health issues and were more likely to suffer violence (Andrew et al., 2020; Cowie & Myers, 2021; Rajmil et al., 2021; Viner et al., 2021).

The research team developed the project COVID-Kids II following a strong demand for a continuation of the project COVID-Kids I to better understand the effect of this prolonged situation on children's well-being and development. The study investigates the children's daily experiences at home and at school, their attitudes and preferences, and their participation and well-being. The project has three components:

1. a qualitative longitudinal study consisting of interviews with 22 children of which 19 had already been interviewed in 2020 during COVID-Kids I (led by Claudine Kirsch, assisted by Džoen Bebić-Crestany)
2. a survey for children aged 6-16 with a focus on subjective well-being, learning at home and at school and leisure time (led by Claudine Kirsch with the assistance of Potheini Vaiouli and LISER)
3. the study HERO exploring the psychological well-being, mental health and resilience of vulnerable children in alternative care (led by Pascale Engel de Abreu, assisted by Cyril Wealer).

The present report is based on the first two components of the study. It provides insights into children's subjective well-being and outlines their leisure time activities and learning experiences during the second year of the pandemic.

# — Methodology

The COVID-Kids II study is a mixed-study based on a questionnaire and interviews. Both will be described below.

## 1. The questionnaire

The questionnaire was an adapted version of the COVID-Kids I questionnaire developed by the interdisciplinary research team Kirsch, Engel de Abreu and Neumann in 2020 (Kirsch et al., 2020b). The new COVID-Kids II questionnaire for the children aged 6-11 (primary school) has 53 questions, that for those aged 12-16 (secondary school) 64 (Kirsch et al., 2021b). The first parts of the questionnaire include items about the children's sociodemographic characteristics (age, gender, household composition, employment status of the parents, educational degree of the parents) as well as dwelling characteristics (housing type, existence of an outdoor space). The second section gathers information about the children's subjective well-being, their attitudes and preferences, leisure time activities and experiences when learning at home and at school. The older participants were also asked what life would have been like without the Coronavirus, intended to elicit heterogeneity in their subjective estimates of the causal effects of the pandemic on a variety of dimensions. The questionnaire, in Luxembourgish, German, French, English and Portuguese, could be completed online or on paper.

The data was collected at two periods of time. In June 2021, the information about the survey was spread on social media. In addition, the researchers approached CARITAS, Croix-Rouge and Elisabeth as well as private schools and asked them to encourage children to complete the online or pen-and-paper questionnaire. There are 18 private (primary and secondary) schools in Luxembourg. Of these five follow

the National Curriculum, the remainder follow independent curricula. The schools attract student populations with different educational and linguistic needs, aspirations and social economic backgrounds. Fees range from free to 20,000 euros a year. (Currently, 18% of children in Luxembourg attend these two types of private schools).

Data was collected between the 7<sup>th</sup> June and 15<sup>th</sup> July 2021. The pen-and-paper questionnaire was completed by 129 children who attended primary state schools. Their mean chronological age was 9.97 ( $SD = 1.81$  years) and 51% of the participants were girls. The socio-economic status (SES) was established based on the International Standard classification of Occupations ISCO 08. The ISCO was categorized into three groups; low, medium and high. Of these children aged 6-11, 64% were of high SES, 20% middle and 16% low. With the exception of some summaries and quotes of the open questions, this data will not be presented in this report. This report will present mainly the data from the online and pen-and-paper questionnaires completed by the 356 children aged 12-16 in June/ July 2021. The majority of the participants (83%) were enrolled in six private schools.

In addition, data was collected from 20<sup>th</sup> September to 15<sup>th</sup> October 2021 with children aged 6-11. Once more, the researchers approached private schools and five participated. As 10% of the children were not enrolled in private schools, it was decided to remove these children from the initial

sample counting 190 participants<sup>2</sup>. It took the younger children (6-11) on average 25 minutes to complete the questionnaire, the older (12-16) 30.

For the purpose of this report, the data of 170 younger and 332 older children were analyzed. We excluded children who did not fit the inclusion criterion (e.g. age), spent less than 8 minutes on the online questionnaire, missed more than 50% of the answers in the entire questionnaire and omitted to answer questions on school satisfaction and performance. There were no significant differences in the ISCO scores between the older children attending private and public schools and no significant differences in the outcome variables in relation to the type of questionnaire (e.g. online, pen-and-paper). It was therefore decided to keep these children in, independently of the type of school or the type of questionnaire.

The mean chronological ages of the younger and older participants were 9.05 years ( $SD=2.01$  years) and 14.14 years ( $SD=1.41$  years), respectively. The questionnaire of the younger children was completed by almost as many boys as girls (49% girls) but a majority

of girls (70%) completed the questionnaire of the older children. The distribution according to SES category (based on ISCO 08) varied considerably according to the two age groups: 0% low, 14% medium, 86% high in the questionnaire of the younger participants and 18% low, 20% medium, 62% high in the one of the older participants. While 16% of the younger children reported that they or a household member had been ill owing to Covid-19, 26% of the older children said so. Further information on the sample is presented in Appendices 2 and 3.

The well-being indicators used in this report are similar to those used in the report of 2021 (Kirsch et al., 2021a). They are based on the understanding that well-being is a multidimensional construct which encompasses different aspects of living conditions and lived experiences including health conditions, educational situation, material resources, social relationships, leisure time activities, protection and safety (Ben-Arieh, 2010; Minkkinen, 2013). It emphasizes the subjective dimension of well-being and the individuals' own perspectives and experiences (Bradshaw et al., 2011).

**Box 1. Dimensions of well-being**

Dimension	Components	Indicators
Subjective well-being during the pandemic	Life satisfaction	Life satisfaction rating, compared to 2020
		Satisfaction rating of health and safety
		School satisfaction rating
	Emotional well-being	Frequency rating of worries
		Frequency rating of negative feelings

<sup>2</sup> In 2020, the Ministry of national Education, Childhood and Youth (MENJE, 2020) estimated that about 14300 children aged 6-18 attended private primary and secondary schools that followed either the national or other curricula. Of these we estimated that 11500 children were aged 6-16. And of these 75% appear to attend the schools that participated in the study COVID-Kids II. As 459 children of these schools completed the questionnaire, our sample includes 4% of this particular school population.



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## 2. The interview

The semi-structured group interviews were based on an adapted interview guide used in the study COVID-Kids I. It had several parts: personal information (e.g. school, home languages, family abroad, status of having been infected with SARS-CoV-2); daily life and any changes compared to 2020, school experiences while at home and at school, learning processes, leisure time activities, and the participants' feelings about Covid-19.

All 18 interviews were conducted on the online platform Cisco Webex between the 7<sup>th</sup> and 23<sup>rd</sup> of June 2021. Fifteen were conducted in English and three in Luxembourgish. Fifteen children were interviewed on their own but seven in group interviews. They took part together with one or two siblings (n=3, n=2, n=2). The single interviews had an average length of 35 minutes while the group interviews lasted on average 50 minutes.

Of the 22 interviewed children, 13 were boys and nine girls. The average age of the interviewed children was 13. Three children were aged 6 to 10, ten 11 to 12, three 13 to 14, and six 15 to 16. Nineteen of the 22 participants had been interviewed last year in the study COVID-Kids I. The children attended seven

different state schools with three children being in primary, the others attending a secondary school. One child had left his school and was awaiting a response from the new school he wished to attend. The children had 12 different home languages between them.

Once the interviews were transcribed, they were analysed with thematic analysis (Braun & Clarke, 2006). To analyse the interviews (as well as the open questions), seven major categories were used for coding the data: health, feelings, restrictions, people, activities, school, other. Each of the categories had between nine and 28 codes. Examples of the codes included falling ill because of Covid (health), expressing sadness (feelings), mask (restrictions), parents (people), watching TV/Netflix (activities), homework (school), and holidays (other). The interviews (and the open questions) were then divided into categories based on well-being indicators and compared. In the present study, we present a summary of the interview results. To give a voice to the children, we also show some answers of the open questions written by the younger children.

# — Key findings

The key findings relate to the quantitative analysis of the survey and the qualitative analysis of the open-ended questions in the questionnaire and the interviews. Each section begins with some answers in the original language to the open questions to give a voice to children. These quotes are followed by some statistics which provide insights into the frequency of the children's answers as well as correlations between various data. The final section provides further details of the children's experiences by summarizing some interview findings. For reasons of confidentiality, all interview quotes have been translated into English.

## 1. Children's satisfaction rates

Claudine Kirsch, Džoen Bebić-Crestany & Potheini Vaiouli, University of Luxembourg

### A. Children's general life satisfaction

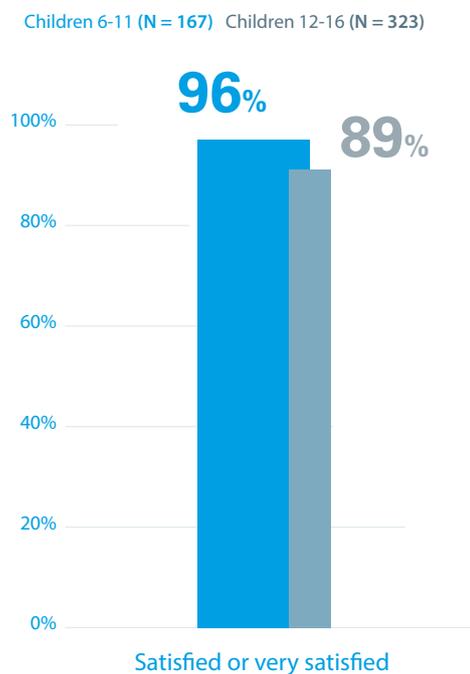
Since 2020, the government has put in place various physical and social distancing measures to reduce the spread of the virus. This affected children's life satisfaction as many reported that their life was not normal in the open questions of the COVID-Kids II questionnaire.

*[The worst is]  
Dass man kein normales Leben führen kann.  
(That one cannot lead a normal life.)  
(Girl, 7, September 2021)*

Asked what "was the best thing" during the pandemic, 10% of the young children and 10% of the older ones responded "nothing" in June 2021. This shows a high degree of dissatisfaction with their current life. Their degree of dissatisfaction is also obvious in the closed questions of the questionnaires.

The participants were asked to think about their life before the pandemic and rate their satisfaction on a 4-point scale from very dissatisfied, not satisfied, satisfied, to very satisfied. A very high percentage of children (96% of the young and 89% of the older children) reported having been satisfied or very satisfied with life then (Graph 1).

**Graph 1. Percentage of children reporting in 2021 having been satisfied or very satisfied with life before the pandemic**

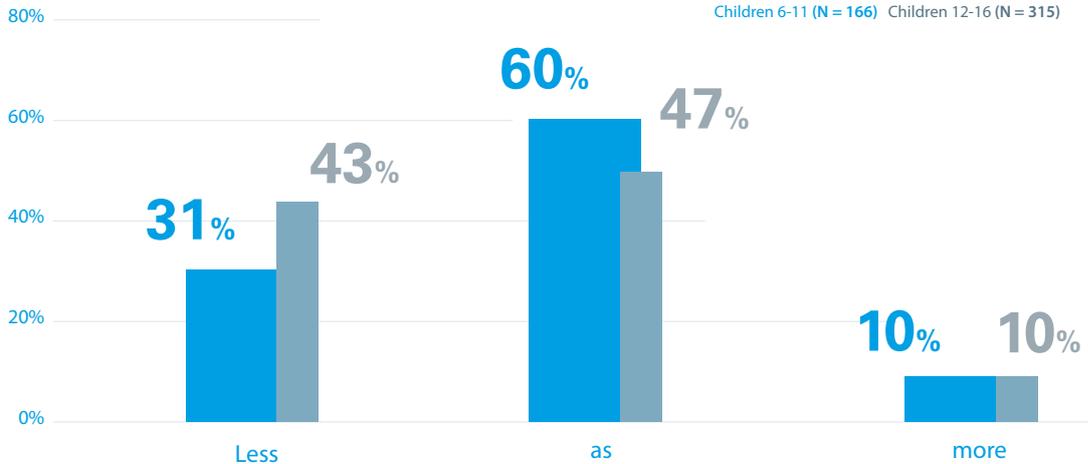


In what follows, the blue bar in the graphs refers to the younger children, that is those aged 6-11, and the grey one to the older ones, aged 12-16.

The participants were also asked to indicate whether they were currently less happy, as happy or happier than before the pandemic. Graph 2 illustrates that the children's satisfaction rate was affected by the Coronavirus pandemic. Of the younger children, 60% reported that their life satisfaction was

the same as before the pandemic but 31% indicated that it had dropped. By contrast, only 47% of the older children reported that it was the same and 43% that it had decreased. A very small minority of children mentioned that their life satisfaction had increased.

**Graph 2. Percentage of children reporting in 2021 being more, as or less satisfied with life compared with before the pandemic**



**B. Children's satisfaction with health and safety**

The Ministry of Health (Santé Publique, 2022) reported 102,486 cases of infections with SARS-COV-2 between the beginning of the pandemic and 30<sup>th</sup> December 2021. Of these, 21% were children and adolescents aged 0-17. The report also shows that 0.6% of children aged between 0 and 14 were hospitalized as a result of their infection and 0.035% were in intensive care. In May 2021, just before the data collection for the study COVID-Kids II, the Ministry counted 69,830 infections of which 28% were of children and young people aged 0-19 (Santé Publique, 2021).

had not caught the Coronavirus or that a person with Covid-19 had not been very ill. Below are some representative quotes (in the original language and translated into English).

The findings of our study show that health was on everybody's minds. In the open questions of the questionnaire, the children frequently commented that the worst was that they or somebody they knew had fallen ill with Covid-19 or had died, and that the best was that they

- Le pire est quand j'étais positif au Covid-19 et le mieux quand j'ai guéri du Covid-19.*  
(The worst is when I was positive for Covid-19 and the best when I recovered from Covid-19.)  
*(Boy, 9, June 2021)*
- Quand mon papa était à l'hôpital.*  
(When my father was in hospital.)  
*(Boy, 9, September 2021)*
- Mein Onkel ist tot wegen Covid-19.*  
(My uncle is dead because of Covid-19.)  
*(Girl, 12, June 2021)*



*Dat d'Leit krank ginn a stierwen.*  
(That people get ill and die.)  
(Girl, 9, June 2021)

*[The best thing was] que je ne suis pas tombée malade.* (that I did not fall ill.)  
(Girl, 7, September 2021)

*[The best thing was] that my dad didn't get very sick when he had Covid-19.*  
(Boy, 9, September 2021)

The quotes from the young children's open questions in June and October 2021 also show that they felt restricted in their daily lives. They perceived that their life was not normal, reporting that their social lives had suffered because they had fewer opportunities to meet friends and family members, especially those abroad, and could not interact in the same manner as before the pandemic, for instance, seeing people face-to-face and hugging them. All aspects of their lives were affected.

*Les classes vertes, les classes de neiges annulées, les masques (on les enlève la semaine prochaine), pas d'anniversaire à fêter, la Schueberfouer 2020 annulée, les vacances en Grèce ratées, je n'ai pas vu ma grand-mère en Angleterre depuis 2 ans.*  
(Green classes, snow classes cancelled, masks (we're taking them off next week), no birthday to celebrate, Schueberfouer 2020 cancelled, holiday in Greece missed, I haven't seen my grandmother in England for 2 years.)  
(Girl, 11, September 2021)

*Le fait qu'on n'a plus eu de vie sociale, je n'ai pas pu voir mes amies, mais grâce à Teams, nous avons pu communiquer. Voyager était plus difficile, nous n'avons pas pu prendre l'avion pour visiter nos grands-parents.*  
(The fact that we didn't have a social life anymore, I couldn't see my friends, but thanks to Teams we were able to communicate. Travelling was more difficult, we couldn't fly to visit our grandparents.)  
(Girl, 12, September 2021)

*Not being able to hug and kiss my grandparents, friends and others etc.*  
(Girl, 7, September 2021)

*Ne pas sortir et ne pas voir sa famille et ses amis.* (Not going out and not seeing family and friends.) (Boy, 7, September 2021)

While 51% missed the contact with friends and family members, 54% wrote that they were pleased to spend more time with their family. Many parents continued to work from home which meant that children saw them more often. Some children indicated that they appreciated their mother's freshly prepared meals.

Masks and testing were also frequent features in the open questions, with some children voicing frustration about the fact that they could not yet be vaccinated and therefore needed to be "constantly" tested.

*Die ganze Zeit Maskenpflicht.*  
(Masks mandatory all the time.)  
(Boy, 11, June 2021)

*Wearing mask and disinfecting and washing hands non-stop that caused a serious dermatitis.* (Girl, 7, September 2021)

*Qu'on ne pouvait plus voyager sans test.*  
(That one could no longer travel without a test.)  
(Boy, 10, September 2021)

*Ständig einen Test machen zu müssen, weil ich noch nicht geimpft werden kann.*  
(Constantly having to take a test because I can't be vaccinated yet.)  
(Boy, 8, September 2021)

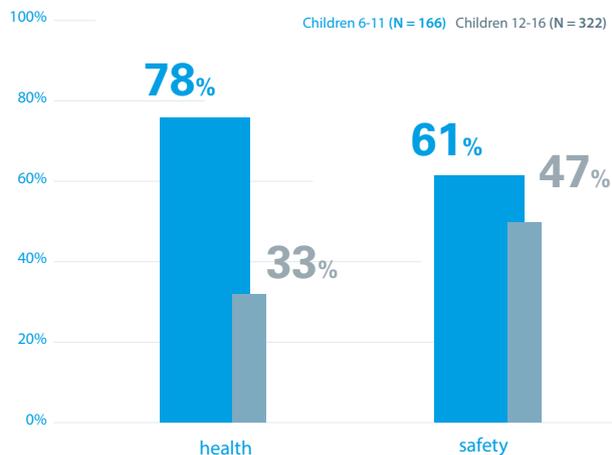
Not everything was bad. As seen in the quotes below, a few children also pointed out the benefit of the restrictions for their safety and were annoyed about the adults' protests.

*Restrictions pour améliorer la situation.*  
(Restrictions to improve the situation.)  
(Boy, 10, September 2021)

*Le pire est les gens qui manifestaient contre le porter du masque.* (The worst is the people who were protesting against wearing masks.)  
(Boy, 11, June 2021)

The children were asked about their satisfaction with health and safety in the main body of the questionnaire. (Of the younger children 16% and of the older children 26% reported that they or a household member had been ill owing to Covid-19.) There were marked differences between the age groups. While 78% of the younger children were satisfied or very satisfied with their health and 61% with their safety, only 33% and 47% of the older participants, resp., were satisfied or very satisfied with these aspects of their lives (Graph 3).

**Graph 3. Percentage of children reporting being satisfied or very satisfied with their health and safety**



Of the 22 interviewees, eleven children (five girls and six boys aged between 10 and 15) commented on their safety. Two of them

(a 13-year-old boy and a 12-year-old girl) shared that they did not feel safe outside of their home as no social distancing measures existed in classrooms and unvaccinated adults put them at risk of catching Covid-19. Nine children seemed to believe that they would not catch the virus for various reasons. Of these, three boys and one girl (aged between 10 and 15) found solace and relief in the current restrictions, be it social distancing, sanitizing, testing or masks. They felt that keeping to these rules prevented a possible infection. Three others were convinced that they were safe either because they were "immune" (having recovered from Covid-19) or because the people around them were "immune" or vaccinated. Some representative quotes follow:

*"I feel like, as long as I wear a mask, follow the rules, I feel like I'm safe." (Arlo, 10)*

*"I'm not gonna say that I'm sceptical about the vaccine because I don't know anything about it, but it was a relief in a way, yes. So, to know that there was a "solution" (...) To just ease everything up with the restrictions, it's a lot more relieving for me to know that no one around me can like, no one around me anyway, friends can get hurt in a way." (Noah, 15)*

*"I'm not that worried even if, like I get Covid, because I know that like there is like a procedure and I'll still be able to continue as like normal life after like a few, after two weeks". (Kayden, 11)*

Finally, two girls aged 13 and 10 mentioned yet another reason for their feeling of safety; family support. One emphasized the positivity and calmness of the mother, another being home-schooled.

### C. Children's satisfaction with school

The following representative quotes illustrate that many children were pleased to go back to school.

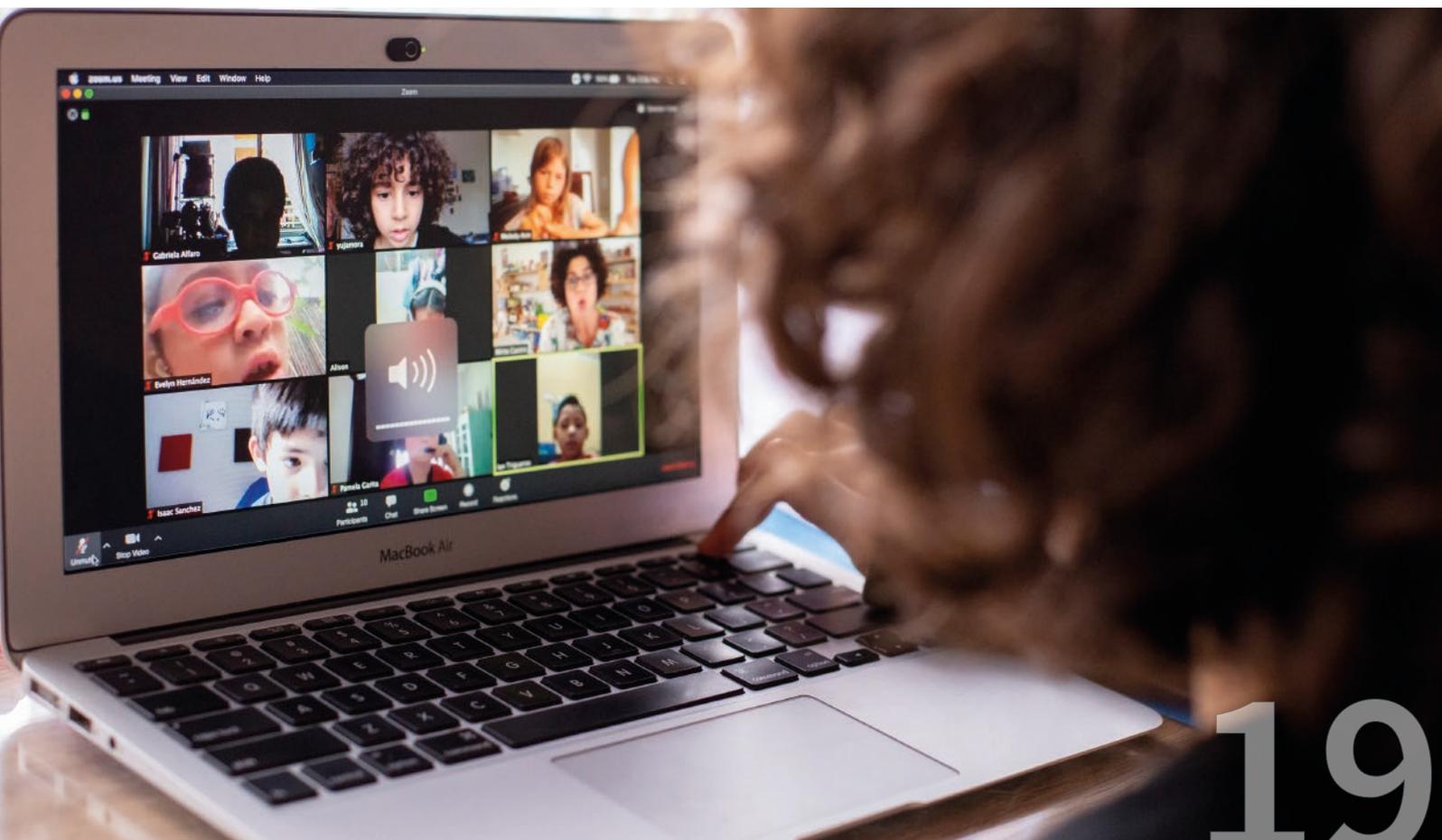
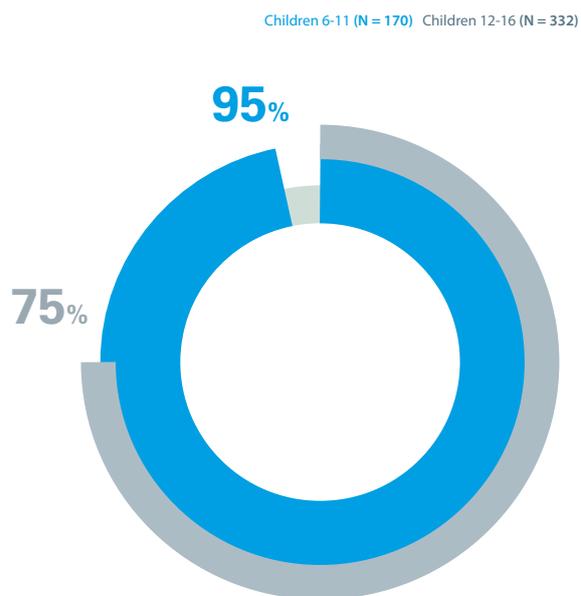
*The best thing was to be able to go to school.*  
(Boy, 8, September 2021)

*"I go to school now unlike many of my friends in [my former home country], so I consider it lucky to go to school."*  
(Bianca, 12, interview June 2021)

Our findings show that the older children were less satisfied with school than the younger ones: 75% of the children aged 12-16 but 95% of the children aged 6-11 were satisfied or very satisfied with their life at school (Graph 4). This striking difference may to some extent be related to the date of the data collection. The older children completed the questionnaire at the end of a difficult school year whilst the younger ones did so in the first weeks of being back after the summer

holidays. Some explanations in relation to the satisfaction rates can be found in Section 4.

**Graph 4. Percentage of children reporting being satisfied or very satisfied with school**



## 2. Children's emotional well-being

Claudine Kirsch, Potheini Vaiouli & Džoen Bebić-Crestany, University of Luxembourg

The next sections report children's perceived negative emotions and worries as well as differences according to gender.

### A. Children's negative emotions and worries

The answers to the open questions in Section 1 have already shown that health was permanently on children's minds and that they felt restricted owing to the social and physical measures. The following quotes give some insights into children's fear, loneliness and boredom.

*Possibilité d'attraper le Covid.*

(Possibility to get Covid.)

(Boy, 10, September 2021)

*Que ma famille meure ou mes parents et que je me retrouve seule ou que j'habite quelque part d'autre.* (That my family dies or my parents and I end up alone or living somewhere else.)

(Girl, 11, September 2021)

*Worry and anxiety.* (Girl, 9, September 2021)

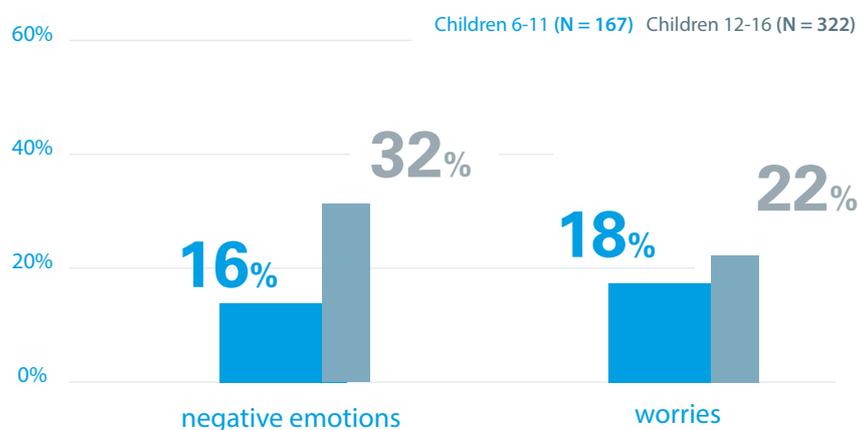
*Ich habe mich gelangweilt und mich ein bisschen einsam gefühlt.* (I was bored and felt a bit lonely.) (Girl, 11, September 2021)

*Loneliness and lack of freedom.*

(Girl, 8, September 2021)

To assess children's emotional well-being in the main body of the questionnaire, the participants were asked to explain how often they had a particular feeling (sad, bored, lonely, anxious) or were worried (about bad experiences, illness, school performance, life being different). They rated their emotions or worrisome thoughts on a four-point-scale from almost never, sometimes, often to very often.

**Graph 5.** Percentage of children reporting having often or very often negative emotions or being worried



Both younger and older children reported experiencing negative emotions and worries during the pandemic. Among the younger children, 16% reported frequently or very frequently experiencing negative feelings and 18% having worrisome thoughts. Asked whether children were afraid that they or someone else in the family may fall ill because of the virus, 19% of the young children but 36% of the older children reported being often or very often worried. Among the older children, 32% reported experiencing negative feelings and 22% reported having worrisome thoughts frequently or very frequently, including that something bad may happen to themselves and their close family.

In the interviews, all children were asked about the negative emotions and worries they felt at the time of the interview in June 2021. Exactly half of the children shared some fears and worries, the other 11 children reported not being worried. Of those who shared negative emotions and worries, children mostly feared that family members living with them or abroad, could become ill. For instance, Alain expressed a fear that his parents might die as the vaccine is not 100% effective. A 12-year-old girl reported that she may catch Covid-19 from an unvaccinated adult and a 15-year-old boy was afraid of the vaccine and its possible side effects. Furthermore, a boy and a girl reported being worried about not being able to attend school if they tested positive. The youngest interviewee, a seven-year-old girl, suffered severe anxiety attacks

## B. Sharing emotions and worries

Results of the COVID-Kids I study showed that the perception that adults listened to children contributed to their well-being. The results of the COVID-Kids II study show that 54% of the younger and 33% of the older children were

when confronted with illness or separation, for example, while watching cartoons and movies.

*“If my parents get sick, not my dad, because he’s vaccinated, but my mom she can, she can die, but that would be, make me very sad and yeah. Very, very sad actually.” (Alain, 12)*

*“I’m just worried about the vaccine, because I have a lot of people that I know, so adults that took the vaccine and then they felt really bad after it.” (Jonathan, 15)*

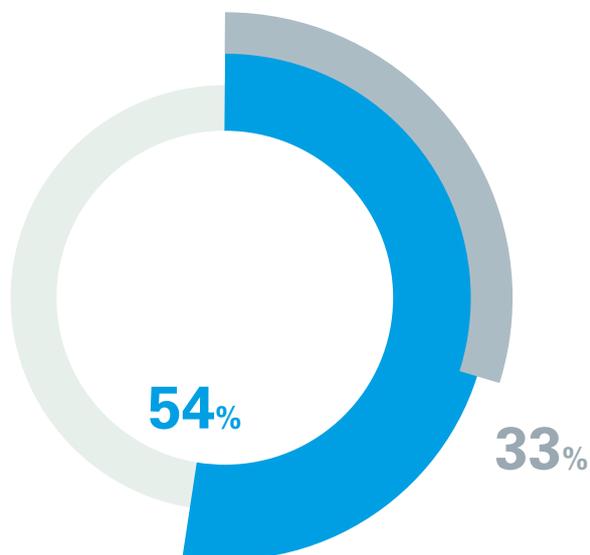
*“I think our main priority wasn’t necessarily if we would get ill or if anyone else would get ill, it’s if we could continue school and stuff like that.” (Bianca, 12)*

The few children who explained that they were not worried gave various reasons: recovery from Covid-19, vaccination, family support and Covid restrictions. For instance, some noted that they were no longer worried as, so far, none of their family members had been infected with Covid-19 or because they were vaccinated. Furthermore, some siblings shared how the positive and calm attitude of their mother had reassured them when four family members had been ill with Covid. Finally, others mentioned that they did not worry as they kept to all the safety measures. A few children volunteered a strategy for remaining calm; escapism. They took refuge in social media and sports (see Section 3).

satisfied or very satisfied with the ways that adults listened to them (Graph 6). This shows, once again, that the pandemic affects older and younger children differently.

**Graph 6. Percentage of children reporting being satisfied or very satisfied with the ways that adults listen to them**

Children 6-11 (N = 167) Children 12-16 (N = 323)



In the interviews, the children were asked whether they communicated their emotions and worries with somebody. Nine interviewees mentioned talking to their parents and siblings about Covid related feelings and thoughts and three explained they did not.

Those who shared emotions and worries found this experience calming and helpful.

Some children, like Isabella, stated that talking about Covid could be depressing and addressed the topic rarely. Only one child, the ten-year-old boy, talked to his teachers about his worries.

*“My mother is the only person I said something about [worries about the vaccine] (...) I think she feels the same.” (Jonathan, 15)*

*“I talk to them [parents] about my worries and everything. They help me, so. And they, I mean, they tell me to stay brave and everything.” (Shai, 12)*

*“Honestly, well, we don't really talk about Covid, I mean it's a subject that would be very like kind of depressing to talk about.” (Isabella, 11)*

The older children (three boys aged 12 to 16) reported not sharing their feelings for different, at times contrasting reasons. While one boy found the topic not “impactful enough” to share with others, another did not want to burden family members. The third explained that he did not share his emotions with his family but they shared some with him.



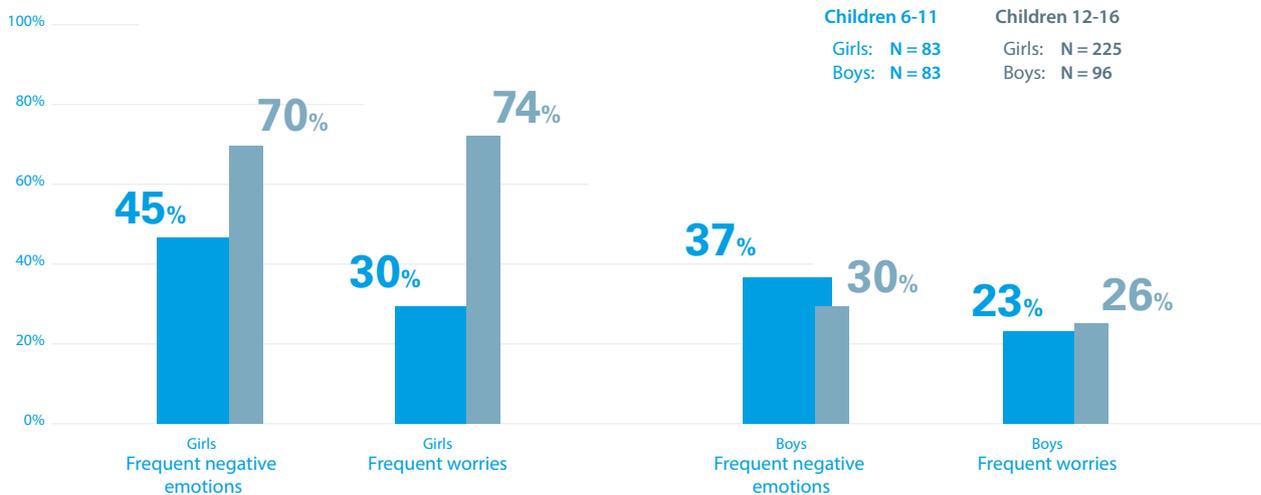
### C. Differences according to gender and age

Certain groups of children seemed to be at increased risk of lower levels of emotional well-being during the pandemic compared to their peers. Results suggest that girls and older children indicated more frequent worries or negative feelings than boys and younger children. Among the young girls, almost one third of them (30%) reported having frequent worries and almost half of them (45%) negative feelings during the pandemic. In the same age group, 23% of the boys reported experiencing frequent worries and 37% frequent negative feelings. Similar patterns were observed among older children but at higher rates (Graph 7). Looking at the responses based on the participants' gender, 70% of older girls (versus 30% of older boys)

reported that they had experienced negative feelings during the pandemic. Similarly, significantly more older girls reported feeling frequently worried during the pandemic than their male peers (74% of girls compared to 26% boys).

Collectively, older children reported significantly more frequent worries and negative feelings during the lockdown than younger children. Also, irrespective of age, girls reported significantly more frequent negative feelings during the pandemic than boys. These findings might suggest that indirect effects of the Covid-19 outbreak appear to hit some groups of children harder than others.

**Graph 7. Age and gender differences: percentage of children reporting frequent negative emotions and worries**



### D. Brief insights from current national and international studies

A study on the effects of Covid carried out with children aged 12 to 29 in Luxembourg in 2021 shows, similarly to the COVID-Kids I and COVID-Kids II study, that participants had differing experiences and that the pandemic affected some groups more (Residori et al., 2021). Of the 12 to-15-year-olds, 35% mentioned that the social distancing measures had a positive impact, 46% that

it had neither a positive nor a negative one, and 19% reported a negative one. As in the first wave of the pandemic, the participants missed their friends and felt locked in and isolated. Further findings indicated the ways children coped and their worries. In general, the participants aged 12-15 coped well (with a rating of 7 out of 10), but this depended on their socio-economic status and migration

background. This shows that the differences between children increase. Of the 12 to-15-year-olds, 54% reported to worry a lot but 22% did not worry at all. The level of worry also increased with age and depended on gender as in the studies COVID-Kids I and II. As for the fear of falling ill, 31% believed that it was likely they would fall ill with Covid-19 (Residori et al., 2021).

The feeling of isolation and loneliness has also been mentioned by children in Germany during the second wave (Andresen et al., 2021). Stress, mentioned by many children in Luxembourg in 2021, did not decrease over time, and was mentioned by children elsewhere. A review of 72 studies on the impact of school closures on children identified emotional (e.g. stress, anxiety), behavioural and restlessness issues (Viner et al., 2021). A longitudinal study by Cresswell et al. (2021) with reports of children and parents in over 8700 families indicated that the level of behavioural, emotional and attentional difficulties eased with the loosening of the

restrictions after the lockdowns. They also showed that the younger children (aged 4-10) suffered greater changes in their levels of behavioural, emotional and attentional difficulties than the older children (aged 11-16) whose patterns of changes were more stable. According to Bujard et al. (2021) and Ravens-Sieberer et al. (2021), even more children and adolescents felt stressed owing to the restrictions of the pandemic in the second than in the first lockdown. As for anxiety, it did not subside over time. Ravens-Sieberer et al. (2021) calculated that 30% of children and adolescents in Germany had anxiety disorders in December 2020/January 2021. According to Pieh et al. (2021), 47% of participants in Austria had anxiety disorders in February 2021. An OECD (2021) report shows that the mental health of 15- to 24-year-olds worsened significantly in 2020-21 and that mental health issues had doubled in most countries by March 2021.

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### 3. Leisure time activities during the pandemic

Claudine Kirsch, Džoen Bebić-Crestany & Potheini Vaiouli, University of Luxembourg

#### A. Children's use of their free time

Many young children mentioned leisure time activities when asked about the best and worst experiences during the Coronavirus pandemic. Relaxing ("chilling", sleeping in, doing nothing), playing and spending time on social media were frequently reported activities. Engaging in physical activities was mentioned less frequently. If mentioned, then it was mainly by children who deplored their absence. Many children reported that they enjoyed the freedom to do whatever they wished and the time they had to engage in new activities or make new friends. Some representative quotes follow.

*I was at home with my mum as she was teleworking, my dad was still working during the pandemic, we had more time to spend together and to do things that normally we do not have time for such as drawing, watching TV together or eating together, going for a walk together etc.*

*(Girl, 7, September 2021)*

*Ich konnte mir mehr Zeit für Sachen nehmen, für die ich sonst keine Zeit habe. Ich konnte später aufstehen und später ins Bett gehen. Ich konnte über Sachen nachdenken, über die ich in normaler Zeit nie nachdenke. (I could take more time for things I normally don't have time for. I could get up later and go to bed later. I could think about things that I never think about in normal time.)*

*(Girl, 11, September 2021)*

*Videogames skyrocketed.*

*(Boy, 11, September 2021)*

*I met new children and very slowly I am making new friends, good friends.*

*(Girl, 6, September 2021)*

*[The worst was being] unable to do sports.*

*(Boy, 7, September 2021)*

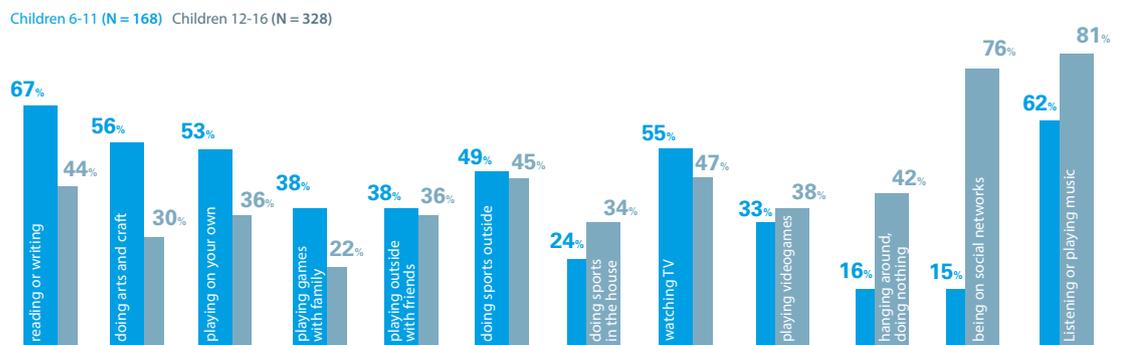
In the main part of the questionnaire, the children were asked where they usually spent their time after school. Multiple answers were possible. The vast majority (72%) of the younger and older children reported that they were at home with their parents or grandparents. While 35% of the younger children spent some of their afternoons in day-care centres, 45% of the older ones spent some time alone or with their siblings at home. Asked about attending clubs (e.g. sports, scouts) or courses (e.g. language, music or ballet), about a quarter of the participants (26% of the younger, 22% of older) reported being enrolled. Whilst a large majority of the younger children (66%) attended these institutions twice to five times a week, the majority of the older children (52%) only attended once a week.

The children also indicated how frequently they engaged in other leisure time activities on their own or with others. Graph 8 illustrates the activities in which the younger (blue) and older children (grey) engaged often or very often. The wide range of activities shows, firstly, that children experienced the pandemic in very different ways. Secondly, the data provides information about the frequency of children's "active" and less "productive" activities. Graph 8, together with the data on children's attendance in clubs, seems to indicate that the older children spent their time less "productively" compared to the younger ones. According to their accounts, they did outdoor sports less often, more often did "nothing" and spent more time listening to music, watching movies and being on social media. Playing outside, exercising and walking enhances children's well-being (Lades et al., 2020; Rehbar et al., 2015).

By contrast, screen time has been said to lower well-being because it makes children sit for long period of times, it decreases their ability to concentrate and focus in day-to-day life and it may even lead to addiction. On average, the young children in this study spent 2 hours and the older 3.5 hours daily on the computer during their leisure time. This means that they spent more hours on screens than doing homework. According to the children's accounts, the younger ones spent 1.5 hours daily on homework and the older 2 hours.

The data provide some insights into the role of digital media during the Coronavirus pandemic. Asked what the older participants in the COVID-Kids II study used their electronic devices for, they indicated that the devices helped them distract themselves, relax and meet friends. Furthermore, 75% agreed or strongly agreed that the use of digital devices helped them feel better during the pandemic. A slight majority (56%) of the older children agreed or strongly agreed that they intend to reduce their screen time after the pandemic.

**Graph 8. Percentage of children reporting engaging frequently or very frequently in particular leisure time activities**



Sport and screen time were also key features of the interviews. At the time of the interview most clubs had re-opened and offered activities, although sometimes in an adjusted form. The children reported how happy they were to return to their organized activities as they were "becoming fat", "unhealthy", "sad", and "unmotivated by doing nothing". The majority (17 children) were active in different sports clubs, music clubs, or a scout troop. While pleased with the opportunities to be active, six children complained that their activities were different compared to before the pandemic owing to the various restrictions in place (e.g. reduced time, social distancing, masks). They perceived the restrictions as "confusing" and "annoying". Some representative quotes follow.

*"I can do way more things now, like everything was closed, so I couldn't go to swimming or music classes. So, now more things are open but they're still kind of restricted. (...) Like swimming, I get half of the time, because of Covid they have to split groups. So, we don't get the max."* (Noel, 12)

*"There are a few restrictions in Judo and one cannot work normally. Well, it is not at all like normal Judo training (...). We have to practice with masks and that is a bit annoying."* (Alex, 12)

Apart from attending clubs, some children reported playing basketball with friends, cycling, going for walks, or reading. A 12-year-old girl and a 15-year-old boy took up new hobbies during the lockdown such as playing a musical instrument and skateboarding. By contrast, two eleven-year-olds (a boy and a

girl) indicated no hobby at present. Kayden blamed losing the wish to do anything as a result of his experiences at school.

*“I don't really do anything like that. (...) The way that school makes you earn your free time (...) also, unintentionally, makes a lot of people feel like doing less, like putting in less effort and doing fewer extra things.” (Kayden, 11)*

All children were asked about their use of digital devices and screen time. Most used their devices to communicate with their friends, play videogames, watch YouTube or Netflix, and do schoolwork. As for any increase or decrease of screen time, children had very different experiences. Eight shared that their screen time did not decrease compared to the first lockdown in 2020, with some spending 2.5 to 4 hours a day in front of a screen. By contrast, two girls and one boy aged 11 and 12, reported less use of digital devices, but still considerably more than before the pandemic.

Some children, like Sandra, were worried about their screen time. Finally, nine interviewees shared that they now spent less time in front of their digital devices owing to school and their activities. Some explained that they used their devices because there was nothing else to do. It was the only way to socialize and it was a good way to be distracted from Covid. The following quotes illustrate the findings.

*“I kinda still use my phone a lot, but it's just a little bit less than in quarantine. It kinda worries me when I check the, my screen time, but like I try to make it less by not using my phone in school. But it doesn't really work that well 'cos quarantine had an impact on like how much I use my phone.” (Sandra, 11)*

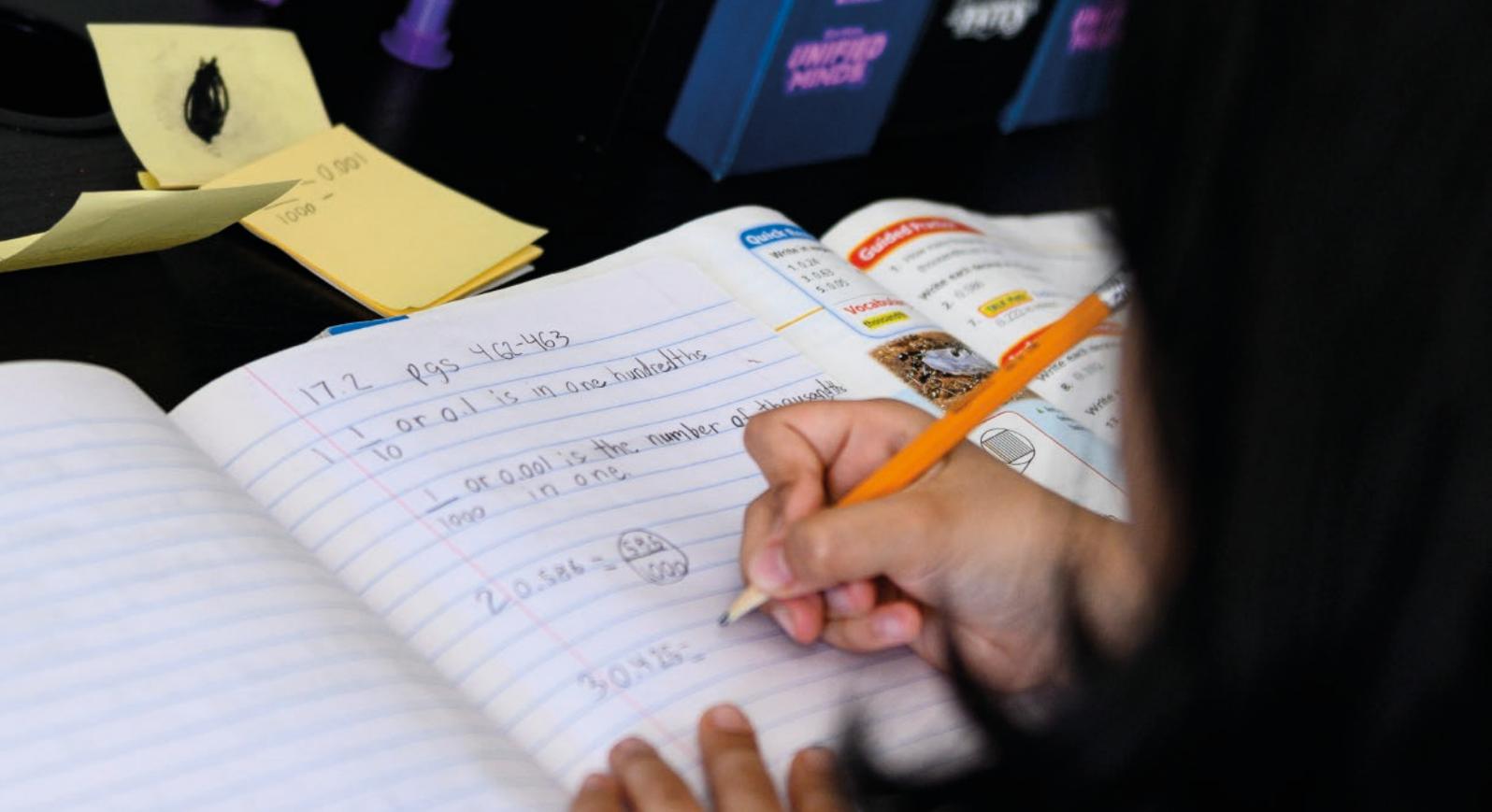
*“[Last year] it was always online things, electric electronic things, like playing video games, watching your series, playing more video games. There weren't really much other things, other to do.” (Jonathan, 15)*

## B. A brief insight into the findings of international studies

A number of other researchers confirm a tendency of children to move from more productive to less productive activities where children relax more and are less physically active (Mangiavacchi et al., 2020). The trend “less sports-more screen time” has been observed in children independently of their social background and country (Park et al., 2020; Pieh et al., 2021; Rajmil et al., 2021). Like children in other studies, the COVID-Kids II participants spent more time playing online games and being on social networks than doing schoolwork (Huber et al., 2020; Wößmann et al., 2020). Studies during the first pandemic have shown that children spent daily on average 1 to 1.5 hours more online than before the pandemic (Kirsch et al., 2020a; Mangiavacchi et al., 2020; Schmidt et al., 2020).

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## 4. School experiences during the pandemic

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The next sections outline the children's learning and teaching experiences with a focus on the children's perceived achievements, the

support received from parents and teachers and the differences between learning from home and at school.

### A. School absence, learning processes and performance

Asked in the open questions about the best or worst experiences during the pandemic, few children commented on school in June. Of those who commented, a few younger and older children explained that they liked to learn from home, referring mainly to comfort such as sleeping in, not having transport issues, and having more time to relax and be with their family. By contrast, most children mentioned missing school and disliked working from home. According to them, distance education meant spending long hours on screens and dealing with technical issues. Other children wrote that the worst was the need to wear masks at school.

Matters related to learning and teaching processes came up rarely. Of those children who mentioned learning, a few emphasized their new autonomy as well as the friendliness

of teachers or the good parental support. Below are some representative quotes of the young children.

*[The best thing is] Les cours en visio étaient trop bien c'était moins stressant pour se lever le matin, [faire] les devoirs.* (The online classes were so good, it was less stressful to get up in the morning, [do] homework.)

*(Boy, 9, June 2021)*

*[The best thing is] Me lever plus tard et faire mes exercices d'école à mon rythme.*

(Get up later and do my school exercises at my own pace.) *(Boy, 7, September 2021)*

*Que j'ai appris à être plus autonome.*

(That I have learned to be more independent.)

*Girl, 10, September 2021)*

*Comme j'ai TDA, mes parents ont eu plus de temps pour s'occuper de moi et de mes devoirs. Dès que je ne comprenais pas quelque chose, mes parents pouvaient m'aider. Comme ça j'ai fait plus de progrès et j'ai aimé travailler de la maison. A l'école très souvent je ne demande pas. (Because I have ADHD, my parents had more time to take care of me and my homework. Whenever I didn't understand something, my parents could help me. This way I made more progress and I enjoyed working from home. At school I often don't ask.) (Girl, 12, September 2021)*

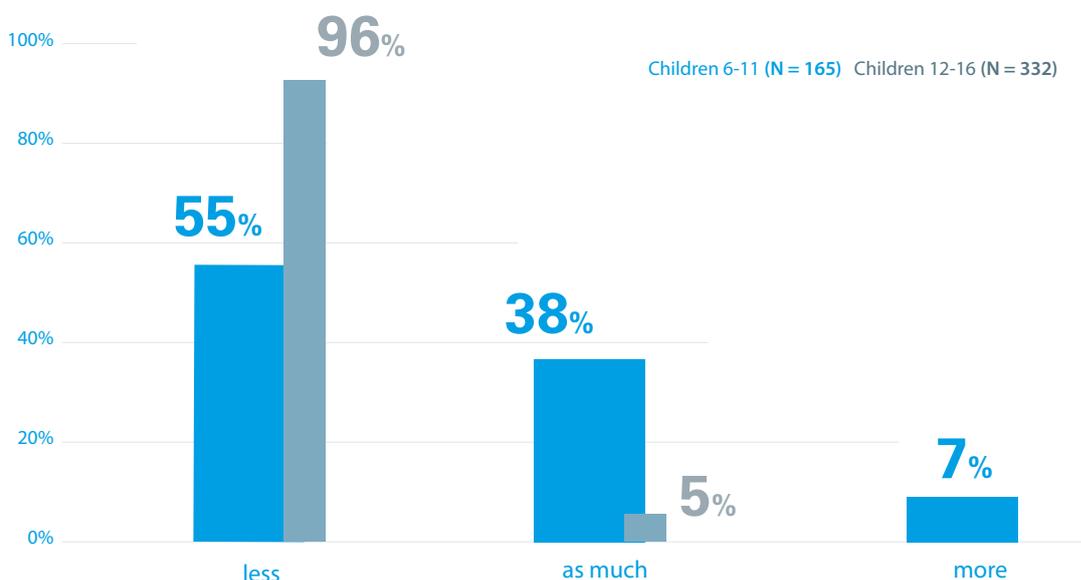
*The worst thing for me during the Covid-19 pandemic is that we had to be isolated and had to do online meetings because there seems to be more noise in the meetings than in the school and I cannot always hear the explanations given by the teacher. (Boy, 11, September 2021)*

*Dass wir in der Schule zu viert sitzen müssen und die Masken die ganze Zeit tragen müssen. (That four have to sit together in school and we have to wear the masks the whole time.) (Boy, 11, June 2021)*

Few children commented in the open questions about their absence from school or on their school achievement. This information was sought in the main part of the questionnaire. Children recalled the number of weeks they had been absent in 2020-21 either owing to school closure or quarantine. Of the younger children, 14% and of the older 19% indicated having missed between four and six weeks. In addition, over a quarter (29%) of the young children and a third of the old ones (36%) reported having missed more than 6 weeks, thus more than half a term. This is damaging and may put the children (and their parents and teachers) under considerable pressure.

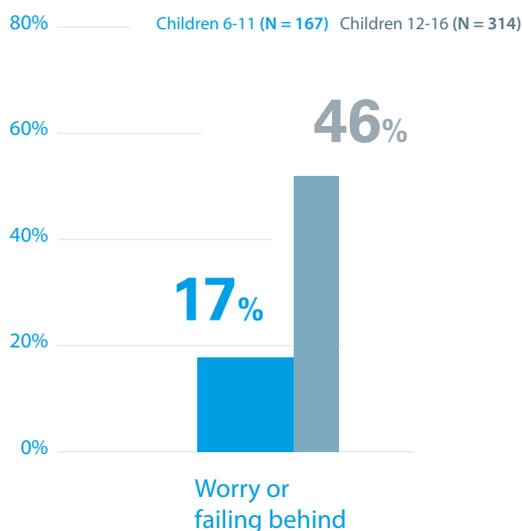
There seems to be a consensus that learning at school is more effective than learning from home. Asked whether they learned less, as much or more during a typical school week at home than at school, the majority of the younger children (55%), and almost all older children (96%) reported that they learned less. Graph 9 illustrates the percentages of the younger and older children assessing how much they learned in both situations.

**Graph 9.** Percentage of children reporting learning less, as much or more at home than at school



The children were also asked how well they performed currently and before the pandemic. The answers to these two questions were compared to ascertain any changes over time. The comparison of the two answers of the younger children, all enrolled in the private sector, indicated no difference. Most perceived that they did as well as or better than their peers, before the pandemic than in October 2021, when the data was collected. By contrast, the comparison of the older children's answers showed a dip: almost half of the children (46%) reported doing well or very well at school before the pandemic compared to 39% during the pandemic. Expressed differently, 17% of children perceived that they did less well or rather badly at school in June 2021 compared to 13% of children who reported doing less well before the pandemic. These differences in perceived performance may also explain the difference between the children's worry of falling behind with schoolwork. Of the younger children, 17% report being frequently or very frequently worried to fall behind compared to 46% of the older children (Graph 10).

**Graph 10. Percentage of children reporting being frequently or very frequently worried of falling behind**



School performance and motivation were also topics the interviewees (all enrolled in

state schools) had at heart. Twenty shared changes in their school performance and motivation level owing to the pandemic. (Only the two youngest girls did not provide any information.) A very diverse picture emerges: six children reported no change in grades, six an increase and four a drop. A further four shared that their grades dipped at first but were better at the moment of the interview. Some of the quotes below shed light on the reasons for the changes. Carolina, like a few other children, explained that teachers did not test them much and Shai, that he had worked harder. A few others emphasized that the content had been easier.

*“I think my grades are unaffected by it just because we didn't obviously, we didn't have tests during the quarantine.” (Carolina, 11)*

*“They [grades] are actually very good. I think they got better because over this lockdown I got more time to revise at home and in free time and everything.” (Shai, 12)*

The fall in the children's achievements was often related to their motivation. According to seven children, their motivation dropped owing to the pandemic and only one eleven-year-old girl shared that she managed to reverse her poor motivation by the end of the year and wished to do well again in school. Two children were so demotivated that they did not attend school, one for several months while another quit but started again half a year later. This boy was so dissatisfied with the way his school prepared him for his future that he quit school. He was awaiting the acceptance letter to another school at the time of the interview. The quote below from Noah, who continued to go to school, testifies to his demotivation and his worry.

*“School is just, it feels like I just go, not to learn, but just to show up. (...) to prove that I'm there. And then I do my tests, I do, I've done a couple, it's not like, school isn't as important to me as it was last year. And that's kind of concerning, especially as my [exams] are coming up.” (Noah, 15)*

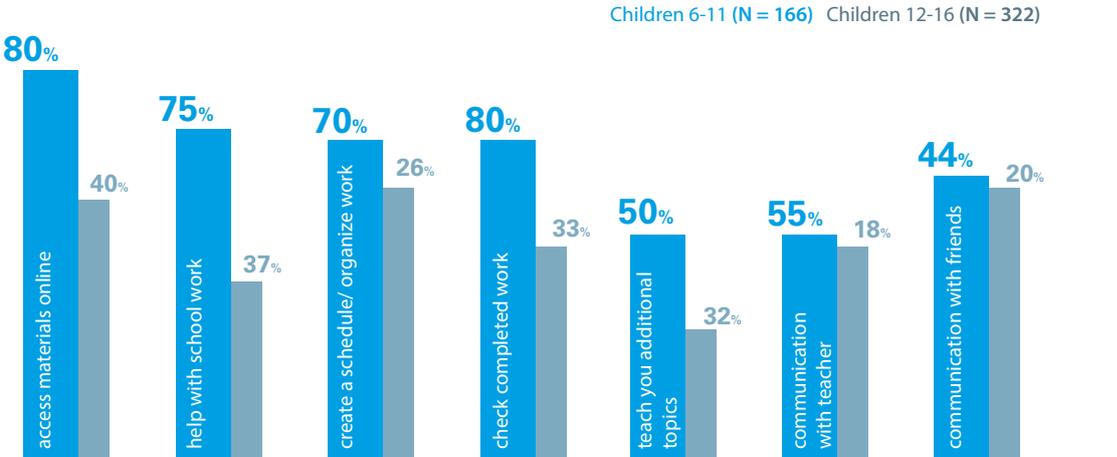
**B. Parent support**

Online learning had been put in place in the Spring of 2020 and one would assume that children had got used to distance learning by the time they answered the questionnaire in 2021. Of the older children, 71% agreed or strongly agreed that they were well prepared for distance education. This did not mean that they did not have or need any support at home.

The children were asked to indicate how often (on a four-point scale from almost never to very often) their parents helped them in particular ways. Graph 11 illustrates the different support structures in place. The findings show that, according to the children enrolled in primary

school, their parents frequently helped them access materials (80%), organize their schedules (70%) and complete their homework (75%). They also checked if the work had been completed (80%) and taught additional topics (50%). Furthermore, they helped their child(ren) communicate with the teacher and, less frequently, with peers. It is to be expected that the parents support older children less than younger ones owing to their increasing independence. Graph 11 shows that, according to the older children, many parents supported them in the same range of ways when the schools were closed or children quarantined.

**Graph 11.** Percentage of children reporting the various ways in which their parents supported them often or very often when they could not go to school

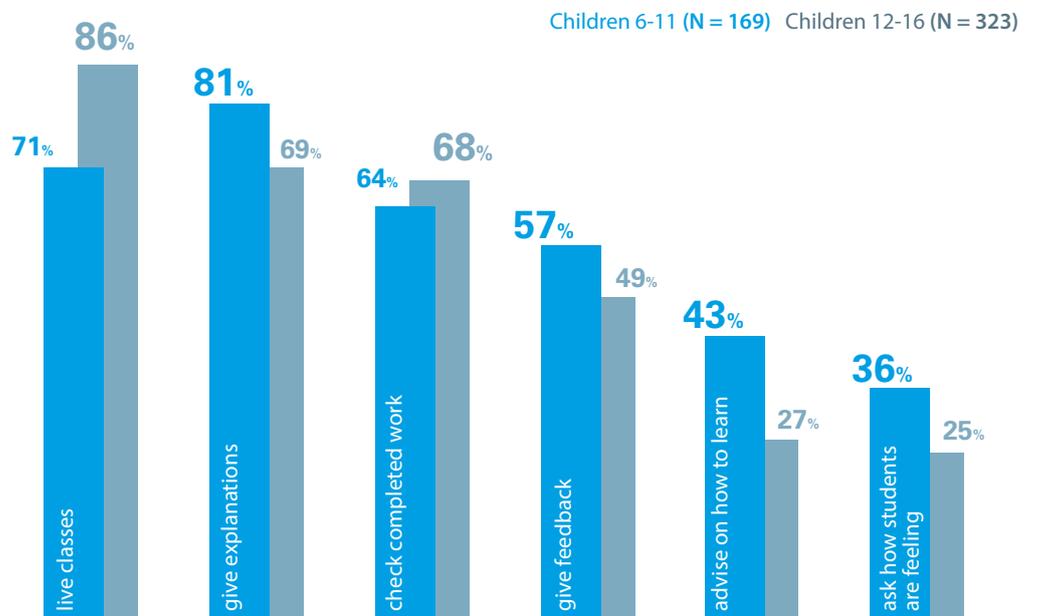


### C. Teacher support

The children were also asked in which ways the teachers supported their learning processes while schools were closed or the children quarantined. The findings show that 71% of the younger children and 86% of the older ones agreed that their teachers often or very often taught live lessons. The vast majority of the teachers were also reported to be frequently checking whether the work had been completed at home (reported by 64% of the

younger children, 68% of the older children) although fewer seemed to give feedback (reported by 57% of the younger children, 49% of the older children). As illustrated in Graph 12, the teachers also advised children on appropriate learning strategies and showed themselves empathetic. About a third of the young children (36%) and a quarter of the older ones (25%) reported that teachers asked about their well-being.

**Graph 12.** Percentage of children reporting on the ways in which their teachers supported them often or very often when they could not go to school



The analysis of the interviews indicated that children had very different experiences of teacher support. Some children praised their teachers for caring, being responsive, listening to them, understanding them, taking away their fear, being always ready to help or leading by example. Two children recounted their experiences.

*“I do have to give credit to the school because I can see that they're trying really hard because they understand that the Covid is really stressful.” (Geoffrey, 13)*

*“When I have a question for my teachers I ask it on Teams and they answer the same day.” (Jacquie, 14)*

Other children criticized their teachers for not caring, not calling during quarantine, and treating students unfairly. Others, again, explained that it depended on the teacher. Finally, some children reported that they did not like the high rate of teacher absenteeism.

#### D. Differences between learning from home and at school

Section 5 of the questionnaire asked children to rate the content, the difficulty and the quality of their work – whether it was understandable, interesting, useful, too difficult and too much – at times when they went to school. Section 6 asked the same questions but this time, when children worked from home because of school closure or quarantines. The answers to both questions were compared and showed significant differences under the two learning conditions.

In the data of the younger and older children, there were statistically significant differences in the reported levels of schoolwork in terms of it being understandable, interesting and useful (see Table 1). Children found their work more understandable, interesting and useful when they could go to school. Furthermore, there were also significant differences in the level of difficulty expressed by the older children, that is, they found the work less difficult when they learned at school (See Tables A and B in Appendix 4).

**Table 1.** Group mean differences of the perceived work when children learned from home and at school

Perception of the work	Younger Children	Older Children
understandable	.289 (.74)	.243 (.78)
interesting	.291(.29)	.119 (.79)
useful	.283(.75)	.117(.72)
too difficult	.164(.63)	-.093(.86)
too much	.006(.82)	.070(.91)

**Note:** Higher values indicate a greater difference in the mean responses of the participants for the two conditions: learning from home and at school. Values in bold mean that group differences for the respective item were statistically significant ( $p < .05$ )

Furthermore, all children reported feeling lonelier and more anxious about their schoolwork when they had to learn from home because schools were closed or they were quarantined (Table 2, see also Tables C and D in Appendix 4). According to the younger children, they felt significantly lonelier when they had to work from home than in general

(when they attended school), and they were significantly more anxious. While the older children also felt significantly lonelier when they worked from home, they did not report higher levels of anxiety. This could suggest that they managed their anxiety levels better compared to younger children.

**Table 2.** Group mean differences of children's reported feelings when learning from home and at school

Children's reported feelings	Younger Children	Older Children
feeling lonely	.801 (1.1)	.318 (1.0)
feeling anxious	.229 (.98)	.028 (1.0)

**Note:** Higher values indicate a greater difference in the mean responses of the participants for the two conditions: learning from home and at school. Values in bold mean that group differences for the respective item were statistically significant ( $p < .05$ )

In the interviews the children were also asked how they perceived their work under both conditions. Almost all (18) preferred attending school. They explained that they did not have to put up with the common challenges of distance education such as trouble with

the internet connection, organisation and long screen times. They also noticed, like Isabella (quote), that they did not always pay attention in online classes. Furthermore, they understood the subject matter better, faster, and more easily and participated better when

they had opportunities for “real learning” at school. In addition, they perceived their day to be more structured and the homework to be less and easier. Finally, they appreciated the time they could spend every day with their friends.

*“It’s a lot easier to understand, like you can learn easier when you actually go to [school], cos online, the teachers might have glitches and sometimes you just care about changing your background and rotating yourself, you don’t really listen.” (Isabella, 11)*

*“I prefer having it [school] in person because usually, sometimes you can’t hear so correctly.” (Arlo, 10)*

The three children who preferred online school found it less stressful because they did not need to put up with any restrictions (masks, sanitizing, tests, social distancing). Some also felt they had less homework. While liking his online classes, Kayden noticed that they had some flaws too: it was hard to focus and the classes were less interactive.

*“But with the calls a disadvantage would be that they’re kind of hard to sit through cause they’re less interactive. (...) Cos they are online and most of the time the teacher will just be saying something, and it is quite hard to stay concentrated on what they’re saying.” (Kayden, 11)*



## E. A brief insight into the findings of national and international studies

During the first wave of the Coronavirus pandemic, teachers in Luxembourg, Germany, Switzerland, Austria, Sweden and Italy, to name a few, gave both synchronous and asynchronous lessons (Huber et al., 2020; Bergdahl & Jalal, 2020; Mangiavacchi et al., 2020; MENJE, 2020). According to Bujard et al. (2021), teachers gained experience with distance education and were better prepared for the second lockdown. The researchers showed that 26% of the children had access to daily online instruction compared to 6% in the first lockdown. The exact number of days of school closure varied between countries, averaging 79 days (OECD, 2021). Children in higher income countries lost fewer school days than those in countries of middle and lower income.

Many researchers have studied the advantages of distance education (e.g. flexibility, independence, comfort, fun, saving time and money as there is no need to travel) as well as its disadvantages (e.g. increased workload, unequal access to equipment, isolation, stress and a fall in the quality of teaching and interactions). It has also been pointed out that the active role of children, varies with the teachers' pedagogical skills (Breitenbach, 2021; Sakalli et al., 2021). As seen in the present study, the children aged 6-16 echo some of these positive and negative experiences with technology. Similar concerns were also echoed by the adolescents in the YAC study in Luxembourg. They were held back by the lack of material and the teachers' and students' inadequate digital literacy skills when teaching moved to distance education (p.176). The participants' learning experiences seemed to vary with the teachers, similarly to the children in the present study. Some adolescents in the YAC study perceived distance education as an enrichment, others as difficult and stressful. Many adolescents criticized the teachers' lack of interest in their well-being; they were only rarely asked how they felt (Residori et al.,



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2021). The children's motivation levels were also affected by distance education as shown in a different study carried out in Luxembourg. Asked whether the level of motivation of their primary school children was similar during the period of home-schooling, 68% of parents responded positively in Autumn 2020. By contrast, only 53% of children in secondary school agreed or fully agreed that their motivation was similar (Fischbach et al., 2021).

As for learning achievements, several researchers have pointed to the negative impact of the pandemic and distance education on children's learning processes and performances. In many countries, children learned less and their grades dropped (Cuevas-Parra & Stephano, 2020; Huber et al., 2020). The reported learning loss has been particularly intense for children of less

affluent families and with an ethnic minority background (Andrew et al., 2020; Bujard et al. 2021; Fischbach et al., 2021; Sharp et al. 2020). In Luxembourg, the results of the standardized tests completed by children in state primary and secondary schools in Autumn 2020, indicated that primary school children of lower socio-economic background and whose families did not speak German or Luxembourgish, performed less well. Secondary students of disadvantaged backgrounds did also less well independently of the type of school. The crisis had intensified existing inequalities (Fischbach et al., 2021).

Parental support is particularly important during a pandemic and can mitigate learning loss. It contributes both to children's education and their well-being (Ellis et al. 2020; Li & Xu 2020). However, parental support seems to have been more readily available to children of more affluent families. According to Bonal & González (2020), high-income and more highly educated parents were more likely during the pandemic to read with their children, engage them in sports or do homework than parents with lower SES. In Luxembourg, children who attended a classic secondary school (frequently of parents of high SES) reported having received more parental support than children attending the other types of secondary school (Fischbach et al., 2021).

While it is important that parents support their children, one must not forget the various roles that parents take during this pandemic, which, in turn, may increase their own stress levels. Parents may go to work or work from home, may take on more household tasks, and help to organize their children's leisure time activities (Akin et al., 2021; Andresen et al., 2020). These additional roles and

tasks can lead to fatigue, stress and burnout (Andresen et al., 2020; Cresswell et al., 2021; Langmeyer et al., 2020). The English Co-SPACE study showed that parental stress was particularly high when restrictions were in place and that more than 60% of parents indicated not being able to meet the needs of both their child and employment (Cresswell et al., 2021). Stress levels were also measured in an international longitudinal study led by researchers in Luxembourg. D'Ambrosio et al. (2021) showed that during the first wave of the pandemic, parents in Luxembourg spent considerably more time on childcare than parents in France, Germany, Italy, Spain and Sweden and had higher stress level. These parents continued to experience high stress levels in 2021, which influenced their life satisfaction. Studies in Germany showed that the degree of stress perceived by parents varied during the pandemic and was higher in January 2021 than at the beginning of the pandemic (Hövermann et al. 2021; Wöbmann et al. 2021). Researchers concur that single-adult and low-income families with children with special needs and neurodevelopmental disorders were particularly affected by stress and negative emotions (Cresswell et al., 2021; Knauf, 2021). Some of these parents and children continued to report high levels of stress after the restrictions were lifted and seem to show less resilience (Cresswell et al., 2021; Cowie & Myers, 2021). Parental stress and children's emotional well-being are closely related (Bujard et al. 2021; Cresswell et al., Kerr et al., 2021). According to family systems theorists, all family members are interconnected and they influence each other. As a result, parenting stress can affect the parent-child relationships and children's behaviour, health and development (and vice-versa).



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## 5. Correlations between school satisfaction, emotional well-being and activities

Potheini Vaiouli, University of Luxembourg

The analysis further explored factors that may influence children's well-being, centring around reported levels of school satisfaction and their expressed negative feelings and worries during the pandemic. Several factors of particular relevance were explored both for the younger and older children: the degree of difficulty and the quantity of schoolwork; the content of the schoolwork; the satisfaction with the way adults listen to children; self-reported online leisure activities; and games that children reported playing with their parents.

The correlational analysis showed the following:

- Difficulty and quantity of schoolwork (higher scores meaning schoolwork being judged more difficult) correlated negatively with the children's reported
- Satisfaction with the way adults listen (higher scores meaning higher levels of satisfaction) correlated positively with the levels of school satisfaction and

levels of school satisfaction and positively with their shared negative feelings and worries.

- Content of schoolwork (higher scores meaning that schoolwork being judged as more interesting) correlated with their levels of school satisfaction and negatively with their expressed negative feelings and worries.
- Fear of falling ill (higher scores meaning more frequent fears) correlated negatively with the reported levels of school satisfaction only for older children.

negatively with the reported negative feelings and worries both for older and younger children.

→ Opportunities for online leisure activities (e.g. using digital devices) correlated negatively with school satisfaction and the reported negative feelings and worries for older children. However, it correlated positively with the expressed

negative feelings and worries for younger children.

→ Opportunities for games with parents correlated positively with the reported levels of school satisfaction for the older children and negatively with the levels of reported negative feelings and worries for the younger children.

**Table 3. The correlation coefficients for younger children**

Predictor factors	School satisfaction	Negative feelings	Worries
Difficulty and quantity (too difficult, too much)	-.231**	.338**	.367**
Content (useful, interesting)	.341**	-.236**	-.114
The fear of falling ill	.128	-.012	.092
Adults listening	.296**	-.255**	-.061
Self-reported online leisure activities	-.148	.276**	.262**
Games with parents	.118	-.181*	-.111

**Table 4. Correlation coefficients for older children**

Predictor factors	School satisfaction	Negative feelings	Worries
Difficulty and quantity (too difficult, too much)	-.301**	.276**	.251**
Content (useful, interesting)	.235**	-.146**	-.092
The fear of falling ill	-.026	.012	.021
Adults listening	.254**	-.159**	-.137*
Self-reported online leisure activities	-.039	-.100	-.065
Games with parents	.221**	-.096	.006

**Note for Tables 3 and 4:** The values in this table indicate how strong a relationship is between two variables. Values can range from -1 to +1; the larger the number, the stronger the relationship. (A result of zero indicates no relationship at all, a result of +1 indicating a very strong relationship, a result of -1 indicating a very strong negative relationship).

In summary, significant relationships emerged between factors that relate to child emotional well-being and children's experiences during the second year of the Coronavirus pandemic. It is important to note that these findings should not be understood within a cause-and-effect lens. Instead, they give us insights into the ways in which aspects of children's

experiences are related and may possibly change. From this perspective, important correlates of emotional well-being during the pandemic were the difficulty, the quantity and the content of the schoolwork during the school closure; the satisfaction with the way adults listen to children, and the reported levels of school satisfaction.

## 6. Life without the Coronavirus: perspectives of the older children

Francesco Andreoli & Eugenio Peluso, LISER

Researchers and policymakers alike are interested in the *causal* impact of Covid-19 on children's well-being. Such effects are determined by comparing the actual level of well-being to the level of well-being which would have been observed in the absence of the pandemic, all else being equal. From an empirical perspective, it is difficult to extrapolate such information from the data: every child in Luxembourg is exposed to the social and health consequences of the pandemic at the very same time, implying that a control group (i.e. children not exposed to Covid-19) is missing. Comparing how well-being has changed from before to after the insurgence of the pandemic yields only rough estimates of such causal effects, insofar that there are many aspects of the life of children that have changed besides the pandemic without necessarily being correlated, such as divorce of their parents. To take a causal stance over the effect of Covid-19, we would like to hold all such aspects as fixed. The innovative strategy in the survey, inspired by the approach in Aujeco et al (2020), consists of directly asking children about their own sub-

jective evaluation of their experiences of Covid-19. We asked the older children in the survey, aged 12-16, to think about a hypothetical situation which reflects their current life but without Covid-19. The questionnaire item read "*We now ask you to imagine yourself and your family in a different world where Covid-19 and all related changes have not happened. What would your life look like without Covid-19 now? Without Covid-19, ...*"

Next, children were given specific statements on different aspects of their life and asked to assess whether the outcomes were *more/better*, *about the same* or *worse/less* in the counterfactual situation in which Covid-19 did not happen compared to the actual situation they live in. While they provided their subjective evaluation of the effects of Covid-19 on 18 dimensions of well-being including health, sociality, school and family, they did not consider the impact of other changes in their life that took also place during 2020/2021 but were unrelated to Covid-19.



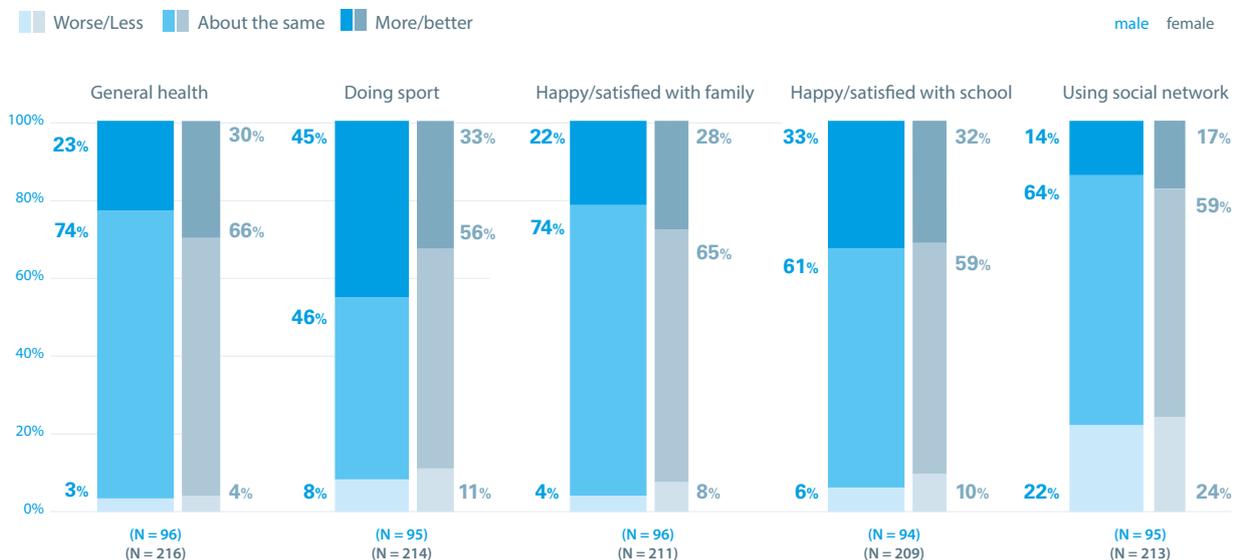
## A. Effects of Covid-19 on satisfaction with health, family and school, and on leisure time activities in relation to gender

Graph 13 shows the responses that boys and girls provided on some selected items. For each item (a bar in the graph), the proportion of students answering *more/better* (respectively, *worse/less*) in the absence of Covid-19 gives evidence of the salience of a "negative" (respectively, "positive") impact of Covid-19. The proportion responding "about the same" reports no significant impact of Covid-19 on their lives.

While big gender differences had been reported in relation to negative feelings and worries (see Section 2, Graph 7), there is no evidence of major discrepancies between boys and girls in the response patterns on the items shown in Graph 13. While a large

majority of children (74% for boys and 66% for girls) declared that their general health was not different from what it would have been without Covid-19, the data show that a proportion ranging from 23% (boys) to 30% (girls) of children reported that they may have had better health in the absence of Covid-19. For almost a third of the children, general health had deteriorated owing to Covid-19. Part of such consideration is related to a strong perceived effect of Covid-19 on their ability to practice sport, the effect being stronger for boys who spent more time on sport activities. In a life without Covid-19, 45% of the boys and 33% of the girls reported that they would have practiced more sport.

**Graph 13.** Subjective evaluation of the causal effect of Covid-19 on health, satisfaction with the family and school, and leisure time activities: boys versus girls



Many of these children reported being satisfied with their families and schools in 2021, which is consistent with the other parts of this report. The causal estimates recovered by the survey reveal that their level of satisfaction would have been higher had the Covid-19 crisis not taken place. The data

also show that about one third of the children increased their use of computers, tablets and internet owing to Covid-19, implying further opportunities to connect with peers using social networks. Such opportunities were not equally shared among children: those who had to share IT devices with siblings or with

parents sometimes reduced their access to IT (and social networks) during the pandemic. To better qualify these effects, the role of family resources as a driver of heterogeneity in the causal impact of Covid-19 on the adolescents'

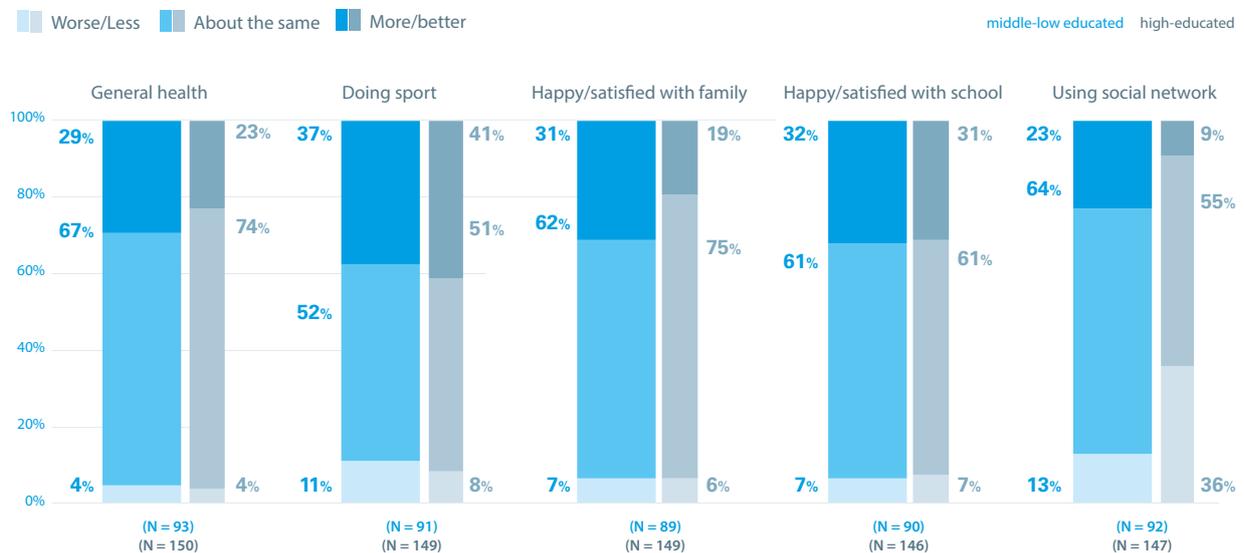
lives and as a source of inequality of opportunities for children development has been investigated (Andreoli et al., 2019).

### B. The mitigating role of family resources

Maternal education can be a good proxy for family resources. Graph 14 reports causal effects for the groups of children with well-educated mothers (holding a university degree) and low and middle educated mothers. The Covid-19 effects on health and satisfaction with school do not correlate with maternal education. However, children of low and middle educated mothers reported a stronger negative effect (32%) of Covid-19 on satisfaction with their families compared to those with well-educated mothers (20%),

indicating that the level of education of the mother may help children cope better with the stress of the pandemic. While 13% of children with low and middle educated mothers see their access to their social networks increase as a consequence of Covid-19, the figure (36%) is almost three times as much in the group of children with a mother with a university degree. From these data, it is not possible to know what the children used their social media for (e.g. relaxing, socializing, communicating about school related matters).

**Graph 14.** Subjective evaluation of the causal effect of Covid-19 on health, satisfaction with the family and school, and leisure time activities: mothers with a lower versus a higher education background



Overall, we find evidence of a double burden of Covid-19: not only does it negatively impact a non-negligible share of children all else being equal but the negative effects impact more heavily on the group of children who have fewer means at home.



# Recommendations by UNICEF

Isabelle Hauffels, UNICEF

The children's experiences during the pandemic, presented in this report, highlight the importance of resilience. Resilience is understood as encompassing a range of influences, including secure attachments to parents, responsive caregiving, positive interactions with teachers and peers as well as access to resources (UNICEF, 2021).

As we move forward, and in the light of the rising Covid cases fuelled by the Omicron variant (Santé publique, 2022), it is of critical importance that we build and cultivate the resilience of children. We make the following key recommendations based on the research findings of the project COVID-Kids II and UNICEF's policy and programme guidance.

## Families

Children are aware of their family members' emotions and worries and are influenced by them. This, in turn, may trigger behavioural, cognitive and emotional responses. Policies should ensure that families are adequately supported:

- Make available further opportunities for counselling and assist parents who are juggling with work, caring and teaching responsibilities.
- Provide practical support for parents, including how to talk about the pandemic with children and how to manage their own mental health and that of their children.
- Roll out parenting programmes to promote positive parenting at key developmental milestones for their child.

## Education

- Whenever possible, keep schools open and have risk mitigation measures in place (UNICEF, 2022). Schools are places where children can socialize and learn, have meals and get emotional and medical support.
- Help educational actors develop and implement social and emotional learning modules. These initiatives equip children with essential cognitive, behavioural and emotional competencies that help them succeed academically and manage life's challenges.
- Help educators and teachers show empathy in their pedagogical practice. To learn and develop, children need to have good and trusting relationships with teachers and feel socially and emotionally supported.
- Provide adequate support for all children during home schooling/ quarantine. Teachers need to ensure that children feel supported, have access to teaching materials, understand their homework,

are motivated and have all the support necessary to make progress. This is particularly true for disadvantaged children.

→ The amount of homework and the level of difficulty need to be appropriate and the content meaningful. Many children have learned less during the pandemic and may also have forgotten learning strategies and habits.

## Participation

→ Invest in structures that enable meaningful consultation with children. Their ideas, concerns, fears, hopes and solutions should be valued and heard.

→ Provide children with opportunities to (re) build connections with family members, peers, teachers, acquaintances. Feeling included and acting with others promotes self-confidence and well-being.

→ Invest in clear, accessible and age-appropriate communication with children on matters that affect them.

→ Take account of the varying experiences of children and design responses based on an analysis which is sensitive to gender, age and socio-economic background.

→ Encourage the access to clubs, sports facilities, and extra-curricular activities and events, with social distancing measures in place, to counterbalance the trend towards more sedentary activities.

## Access to resources

→ Adopt a multidisciplinary approach to providing services: Fostering resilience in children and young people requires interventions that provide learning, recreation, and social opportunities that address social marginalization, minimize risks and maximize protective factors in everyday environments (UNICEF, 2021).



## Jak si správně mýt ruce

Doporučený postup hygieny podle Světové zdravotnické organizace  
Celkem procedura mytí trvá 40 – 60 sekund

- 

1. Rubte dlaněmi
- 

2. Všechny oblasti rukou na každý stranu směrem k sobě
- 

3. Prsty ruky a dlaně rukou směrem k sobě, prsty přehoďte přes dlaně
- 

4. Dlaně a palce, oproti směru prstů
- 

5. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte
- 

6. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte
- 

7. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte
- 

8. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte
- 

9. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte
- 

10. Prsty zabalte dole, řetěz prstů kolem palce, otáčejte



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## Appendix 1:

Examples of question from the questionnaire COVID-Kids II

*Think about the time before the Coronavirus. How satisfied were you normally with your life at home then?*

Very dissatisfied	
Not satisfied	
Satisfied	
Very satisfied	

*Here is a list of words that describe various feelings. How often do you feel like this now?*

	Almost never	Sometimes	Often	Very often
Sad				
Bored				
Lonely				
Anxious/ worried				

*Think about the time before Covid appeared and how happy you feel now. Which answer is correct?*

	I am less happy now than before the Covid-19 pandemic
	I am as happy now as before the Covid-19 pandemic.
	I am happier now than before the Covid-19 pandemic.

*How did you find your schoolwork usually last school year when you went to school? Choose one answer in each row.*

	Almost never	Sometimes	Often	Very often
Understandable				
Interesting				
Useful				
It is too difficult				
It is too much				

*How did you find your schoolwork usually last school year when you went to school?*

	I learned less when I could not go to school.
	I learned about as much when I could not to school.
	I learned more when I could not go to school.

## Appendix 2:

Demographics of the young children aged 6-11 enrolled in private schools

(N = 170)	Frequency
Language of the questionnaire	
French	7%
German	42%
English	48%
Luxembourgish	1%
Portuguese	2%
Gender (girls)	49%
Residence area (village)	38%
Dwelling (with outside area)	63%
House with garden	47%
Flat with garden	16%
Higher occupational status parents	
ISCO 08: 1-37 (high)	86%
ISCO 38-63 (middle)	14%
ISCO 64-89 (low)	0%
Siblings (yes)	81%
Own bedroom (yes)	74%
Own computer or/and tablet (yes)	58%
Room to study (yes)	91%
Illness due to Covid self or household member (yes)	16%
School satisfaction	
Very dissatisfied	1%
Not satisfied	4%
Satisfied	50%
Very satisfied	45%
Nb of weeks missing school	
Less than 1 week	8%
1-2 week(s)	16%
2-4 weeks	33%
4-6 weeks	14%
More than 6 weeks	29%
Satisfaction with health during the pandemic	
Very dissatisfied	0%
Not satisfied	4%
Neither dissatisfied nor satisfied	18%
Satisfied	53%
Very satisfied	25%
Satisfaction with safety during the pandemic	
Very dissatisfied	4%
Not satisfied	5%
Neither dissatisfied nor satisfied	30%

Satisfied	42%
Very satisfied	19%
Life satisfaction before Coronavirus	
Very dissatisfied	0%
Not satisfied	4%
Satisfied	34%
Very satisfied	62%

	Mean	SD
Age	9.06	2.01
Household size (including self)	4.24	0.84

## Appendix 3:

Demographics of the older children aged 12-16 enrolled in secondary schools

(N = 332)	Frequency
Language of the questionnaire	
French	37%
German	30%
English	10%
Luxembourgish	13%
Portuguese	10%
Gender (girls)	70%
Private schools	83%
Residence area (village)	56%
Dwelling (with outside area)	75%
House with garden	64%
Flat with garden	11%
Highest level of education (mother)	
Primary school	5%
Secondary	33%
University	62%
Highest level of education (father)	
Primary school	5%
Secondary	30%
University	65%
Higher occupational status parents	
ISCO 08: 1-37 (high)	62%
ISCO 38-63 (middle)	20%
ISCO 64-89 (low)	18%
Siblings (yes)	78%
Own bedroom (yes)	88%
Own computer or/and tablet (yes)	89%
Room to study (yes)	93%

Illness due to Covid self or household member (yes)	26%
School satisfaction	
Very dissatisfied	6%
Not satisfied	19%
Satisfied	58%
Very satisfied	17%
Nb of weeks missing school	
Less than 1 week	9%
1-2 week(s)	17%
2-4 weeks	19%
4-6 weeks	19%
More than 6 weeks	36%
Satisfaction with health during the pandemic	
Very dissatisfied	7%
Not satisfied	17%
Neither dissatisfied nor satisfied	43%
Satisfied	27%
Very satisfied	6%
Satisfaction with safety during the pandemic	
Very dissatisfied	5%
Not satisfied	14%
Neither dissatisfied nor satisfied	34%
Satisfied	40%
Very satisfied	7%
Life satisfaction before Coronavirus	
Very dissatisfied	3%
Not satisfied	8%
Satisfied	50%
Very satisfied	39%

	Mean	SD
Age	14.14	1.42
Household size (including self)	4.37	1.22

## Appendix 4:

Additional tables in Section 4D

**Table A.** Younger children comparison of means: differences between perceived school work at school and at home

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Understandable	.289	.747	.058	.175	.404	4.986	165	.000
Interesting	.291	.812	.063	.166	.416	4.604	164	.000
Useful	.283	.756	.060	.165	.401	4.722	158	.000
Too difficult	.164	.634	.049	-.098	.098	.005	164	1.000
Too much	.006	.823	.065	-.121	.134	.095	161	.924

**Table B.** Older children comparison of means: differences between perceived school work at school and at home

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Understandable	.243	.789	.044	.156	.330	5.520	320	.000
Interesting	.119	.791	.044	.032	.206	2.686	319	.008
Useful	.117	.729	.041	.035	.198	2.808	308	.005
Too difficult	-.093	.865	.048	-.188	.001	-1.937	320	.054
Too much	.070	.919	.052	-.032	.172	1.351	313	.178

**Table C.** Younger children comparison of means: differences between emotions when learning at school and from home

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Feeling Lonely	.801	1.091	.085	.634	.968	9.461	165	.000
Feeling Anxious	.229	.989	.077	.077	.380	2.983	165	.003

**Table D.** Older children comparison of means: differences between emotions when learning at school and from home

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Feeling Lonely	.318	1.037	.058	.203	.432	5.461	317	.000
Feeling Anxious	.028	1.056	.059	-.088	.145	.477	318	.634



