



SUBJECTIVE WELL-BEING AND STAY-AT-HOME EXPERIENCES OF CHILDREN AGED 6-16 DURING THE FIRST WAVE OF THE COVID-19 PANDEMIC IN LUXEMBOURG

A report of the project COVID-Kids

Subjective well-being and stay-at-home experiences of children aged 6-16 during the first wave of the COVID-19 pandemic in Luxembourg: A report of the project COVID-Kids

Scientific steering committee of the COVID-Kids project: Prof. Claudine Kirsch (University of Luxembourg), Prof. Pascale Engel de Abreu (University of Luxembourg), Prof. Sascha Neumann (University of Tübingen)

Policy recommendations in this report: UNICEF Luxembourg

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University of Luxembourg,
Faculty of Humanities, Education and Social Sciences
Campus Belval
L-4366 Esch-Alzette
<https://covid-kids.uni.lu>

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— Foreword

The coronavirus is killing millions of people around the world and the aftermath of the pandemic is no less harmful. The protection and isolation measures put in place to stop and fight the virus have a significant impact on our social life and our social interactions.

Alongside the elderly, young people are strongly exposed. The closure of schools, the limitation of social interactions as well as the restriction measures may ultimately put a strain on the mental and physical health of young people.

This study focuses on the analysis of the subjective well-being experienced by young people aged 6 to 16 during the first wave of the Covid-19 pandemic when sanitary measures were in place during the confinement from March to May 2020.

This report aims to highlight the main findings of the study and gives recommendations relating to the well-being of young people. The authors need to be praised for their initiative.

The Œuvre Nationale de Secours Grande-Duchesse Charlotte provided financial support for the elaboration and publication of this report based on its mission to support the well-being of the younger generation, to which it devotes an important part of its action. The support of the Œuvre also reflects its commitment to fight the virus and the societal repercussions of the pandemic. Finally, the support expresses its continuous aim to identify urgent needs within our society and the ambition to fulfill these needs with the help of civil society.

The Œuvre wants to congratulate the researchers of this study and their attempts to highlight the suffering of young people throughout the duration of the study. This report is particularly valuable as it proposes solutions for these risks and critical situations that help minimize or even avoid long-term negative impacts on the physical and mental health of young people in the future. The study is aimed at parents, teachers and educators, as well as political leaders who it supports in the process of taking decisions about sanitary measures aiming to contain the viruses and pandemics.

May this initiative receive the feedback it deserves.

Pierre BLEY

President Œuvre Nationale de Secours
Grande-Duchesse Charlotte

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— Acknowledgements

The research project COVID-kids was carried out during the first wave of the Covid-19 pandemic. It was developed under great time pressure and precarious conditions. Within five weeks and with as yet no funding, the scientific steering committee had designed, piloted and put online a questionnaire on children's well-being and stay-at-home experiences during the lockdown. The collection of data through the online questionnaire and the interviews, as well as the analysis of a vast amount of data over a few months was possible because all members of the small research team invested most of their free time and made an extraordinary effort. Apart from thanking our colleagues for their continuing support, we would like to express our deep and sincere gratitude to several people and organizations who supported and assisted us. Without them, the project would not have been possible.

First of all, we would like to thank all children for participating in the online survey and the interviews, as well as their parents for supporting and assisting them.

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In addition, we are deeply indebted to the many colleagues, friends and organizations who helped disseminate the information about the online survey in Luxembourg, Germany, Brazil, Switzerland and other countries, and encouraged children to participate.

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Our thanks also go to Antony Warde-Jones for proof-reading this report before the publication.

Finally, we would like to acknowledge with gratitude, the support and patience of our families who freed us from other obligations during the extreme challenges of this year.

¹ MNCAH stands for maternal, newborn, child and adolescent health; https://www.who.int/maternal_child_adolescent/research/covid-19/en/

— Authors



Claudine Kirsch (Dr. Phil.), principal investigator of the project COVID-Kids, is Associate Professor in Languages at the University of Luxembourg, Faculty of Humanities, Education and Social Sciences, Institute for Research on Multilingualism. Her research areas include language learning and teaching, multilingualism, multiliteracies, family language policies, collaboration, early childhood and professional development.



Pascale Engel de Abreu (Dr. Phil.), member of the COVID-Kids steering committee and co-initiator of the project, is Associate Professor in Psychology at the University of Luxembourg, Faculty of Humanities, Education and Social Sciences, Institute for Research on Multilingualism. She is a trained child psychologist and her major research interest lies in cognitive development, neurodevelopmental disorders and the impact of early experience on child development.



Sascha Neumann (Dr. Phil.), member of the COVID-Kids steering committee and co-initiator of the project, is full Professor of educational research with special emphasis on social work at the Eberhard Karls University of Tübingen, Faculty of Economics and Social Sciences, Institute of Education. His research includes theory of childhood and childhood studies, theory and history of social work, early childhood education, well-being and participation of children.



Cyril Wealer (Dr. Phil.), Postdoctoral Research Associate in the Doctoral Training Unit Capitalising on Linguistic Diversity in Education at the University of Luxembourg, Faculty of Humanities, Education and Social Sciences, Institute for Research on Multilingualism. His main research interests relate to oral language and literacy development in multilingual children. He also works at the centre for highly gifted children and adolescents (CEJHP).



Kristijonas Brazas (MA) is a research and development specialist at the University of Luxembourg, Faculty of Humanities, Education and Social Sciences, Institute for Research on Multilingualism. His main research interests lie in teaching methods, culture and equality in education, cultural assimilation in education, as well as language learning and teaching.



Isabelle Hauffels is Advocacy Manager at UNICEF Luxembourg. She works to promote the rights of every child, everywhere and advocates to making children's voices and priorities heard.

Executive summary

This report summarizes key findings and recommendations relating to child well-being in Luxembourg during the first wave of the COVID-19 pandemic from the research project "COVID-Kids". The study examined subjective child well-being and stay-at-home experiences of children aged 6-16 via an online questionnaire (680 children) and interviews (22 children). The findings and recommendations presented here are based on quantitative and qualitative data. All the data was collected during the pandemic between May - July 2020.

Key points

- Children's reported life satisfaction significantly decreased. While 96% of children indicated that they had been satisfied or very satisfied with their lives before the pandemic, only 67% indicated being satisfied or very satisfied with their lives during the pandemic.
- Certain groups of children reported significantly lower levels of emotional well-being during the pandemic than others. These groups were older children (compared to younger children), those of lower socioeconomic backgrounds (compared to peers from higher socioeconomic backgrounds) and girls (compared to boys).
- Significant relationships emerged between factors from different spheres of influence and child well-being. Important correlates of subjective well-being during the pandemic were the difficulty, the quantity and the content of the school work during the school closure; the fear of becoming ill, and the satisfaction with the way adults listen to children.
- Children missed their friends and their family most during school closure and confinement: 37% indicated "friends" and 37% "family" when asked what they missed most.
- Over a third of the children reported frequent concerns of falling ill during the pandemic: 32% indicated being often or very often worried that they or somebody close to them may fall ill.
- Children reported working three to four hours a day on school work and not everybody indicated coping well with it. During the pandemic, the primary school children worked on average 3 hours 20 minutes for school, those from secondary school 4 hours and 20 minutes. Whereas 63% of the children in primary school indicated coping well with their school work, only 44% of those in secondary school reported coping well.
- Secondary school children were less "active" during school closure and confinement than primary school children. The secondary school children indicated listening to music or spending time "doing nothing" more frequently than primary school children (74% vs. 47% and 46% vs. 15%, respectively). By contrast, the children from primary school indicated playing or spending time outdoors more frequently than those from secondary school (86% vs. 35% and 69% vs. 54%, respectively).
- Give children a voice: their experiences vary and they have much of importance to say.



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Recommendations for policy and practice

- Ensure that children and parents have access to relevant prevention and response services to promote child well-being and their long-term mental health.
- Invest in clear, accessible and age-appropriate communication with children on matters that affect them, such as changes to health orders or education arrangements.
- Provide ongoing remedial programmes to mitigate learning loss and prevent the widening of gaps in learning.
- Invest in further research to better understand the experience of the most vulnerable children in this pandemic.
- Conduct children's rights impact assessments: each decision, law, and policy made in the context of the pandemic should consider the impact it has on children. Children's views must be solicited in this respect and taken into account.

— Introduction

The COVID-19 pandemic has had an unprecedented impact on our lives. Governments across the world took measures to contain the harmful effects of the COVID-19 pandemic. While quarantine and school closure aimed at delaying the spread of the virus and flattening the peaks of the outbreak, they also impact individuals' psychological and emotional well-being, society, as well as the economy (Viner et al., 2020). The impact on children, especially young children, has not been much researched yet.

Luxembourg saw its first case of COVID-19 on 5th March 2020. The government acted by calling for a lockdown and closing schools and institutions of education and care from 16th March 2020. It implemented measures to gradually relax the lockdown from April. Educational institutions opened gradually in the final stages of this period. Pupils sitting their final exams returned to school on 4th May, other secondary school pupils on 11th May and primary school pupils on 25th May. Owing to the social and physical prevention measures, pupils went to school on alternating weeks. Home schooling, which had begun on 16th March, would continue until 29th June 2020.

The study COVID-Kids examines the subjective well-being and stay-at-home experiences of children aged 6-16 during the first wave of the pandemic (May-July 2020) through an online questionnaire (in different countries) and interviews carried out with children aged 8-16 in Luxembourg. The project was initiated by Claudine Kirsch and Pascale Engel de Abreu, scientists at the University of Luxembourg, and Sascha Neumann of the University of Tübingen.

The study is based on the multifaceted concept of well-being which has been well established in interdisciplinary research on childhood and adolescence as well as in national monitoring and international comparison of living conditions of young people (Ben-Arieh, 2010). Well-being, a multidimensional phenomenon, encompasses different areas and levels of children's living conditions and lived experiences including material resources, health conditions, social relationships, and protection and safety (Minkkinen, 2013). It emphasizes the subjective dimension of well-being and the individuals' own perspectives and experiences (Bradshaw et al., 2011).

This report summarizes key findings of the research project COVID-Kids in Luxembourg and gives some recommendations to improve child well-being. It uses the word child in line with UNICEF and the UN Convention on the Rights of the Child, which use "child" when speaking of people aged 0-18.

Methodology

The study used a mixed-method approach comprising a questionnaire and interviews. The online questionnaire was developed by the interdisciplinary research team (Kirsch, Engel de Abreu, Neumann), in Luxembourgish, German, French, English and Portuguese (European and Brazilian). It contained 68 questions that aimed to explore subjective well-being and stay-at-home experiences during the pandemic of children aged 6 to 16.

The data was collected via an unrestricted and anonymous web-based survey using non-probability sampling. The anonymous questionnaire was online from the 6th May until the 14th July 2020. Instructions specified that children should complete the questionnaire themselves in the language of their choice, but that they could seek assistance if they had difficulties. It took children in Luxembourg on average 25 minutes to complete it.

The questionnaire had three broad sections: general information on the participants, life and school before the pandemic, and life and school during the pandemic. It included, among other things, personal details about the children, their families and home; questions about life at home, at school, free time and life satisfaction before the pandemic; questions

about life at home, at school, free time during the pandemic; ratings on life and school satisfaction during the pandemic; questions about worries (e.g. having less money, falling behind at school) and emotions (i.e. sadness, loneliness, anxiety, boredom). It also contained two final open-ended questions asking children to write down "the best thing" and "the worst thing" during the pandemic (see Appendix 1 for question examples).

In total 719 eligible participants took part in the survey and the data of 680 children was analysed for the purpose of this report¹. The mean chronological age of the participants was 10.54 years (SD = 3.11 years), 57% were girls and 67% attended primary school. Socioeconomic status (SES) was established based on the occupational status of the caretakers, which was converted into the International Socio-Economic Index of Occupational Status (ISEI-08, Ganzeboom, 2010). The ISEI-08 was categorised into three groups and the distribution according to SES category was as follows: 7% low, 16% medium, 77% high.

Further information on the sample are presented in Appendix 2.

Box 1 - Well-being indicators used in this report

Dimension	Components	Indicators
Subjective well-being during the pandemic	Life satisfaction	General life satisfaction rating
		School satisfaction rating
	Emotional well-being	Frequency rating of worries
		Frequency rating of negative feelings

¹ A detailed description of the methods can be found in Engel de Abreu, Neumann, Wealer, Abreu, Macedo, Brazas, & Kirsch (in prep.) Subjective well-being of adolescents in Luxembourg, Germany and Brazil during the COVID-19 pandemic and Kirsch, Engel de Abreu, Neumann, Brazas & Wealer (in prep.) Difficulty, quantity and content of school work reported by children in Luxembourg, Germany and Switzerland.



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The 11 semi-structured group interviews were based on an adapted version of the interview guide 'Children at home – children talking about staying at home during Corona time'. This interview guide has been developed and pre-tested by members of the multinational project "Children's Understandings of Well-being – global and local Contexts" in May 2020 and has been shared with colleagues studying the impact of COVID-19 on children around the globe². The adapted interview guide used in the project COVID-kids had several parts: the outline of a typical day during the pandemic, home schooling experiences, feelings related to COVID-19 and the pandemic, people and institutions that children missed, and things that they would like to stay the same after the pandemic.

Twenty-two children (14 boys, 8 girls) aged 8 to 16 of five different schools participated. Half of the children attended primary school, half secondary. At the time of the interviews, the primary schools were still closed and teachers set work to be completed by the children at home. By contrast, the secondary school pupils had been back at school for one or two weeks.

The interviews lasted on average 45 minutes and were carried out in English or Luxembourgish on online platforms in May 2020. The data was analysed with thematic analysis (Braun & Clarke, 2006).

² The questionnaire 'Children at home – children talking about staying at home during Corona time' has been developed and implemented in the framework of the study, Children's Understandings of Well-being – global and local Contexts (<http://www.cuwb.org/>)

— 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.

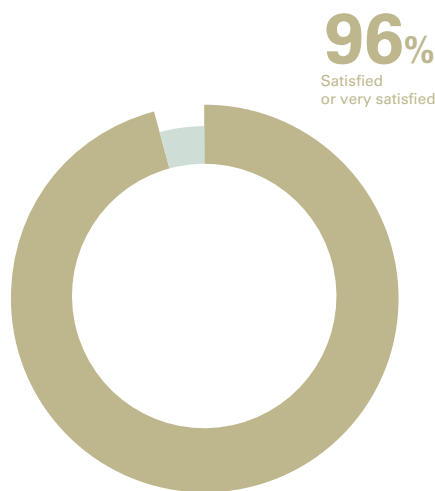


Figure 1 - Life satisfaction of 6- to 16-year-olds in Luxembourg before the pandemic

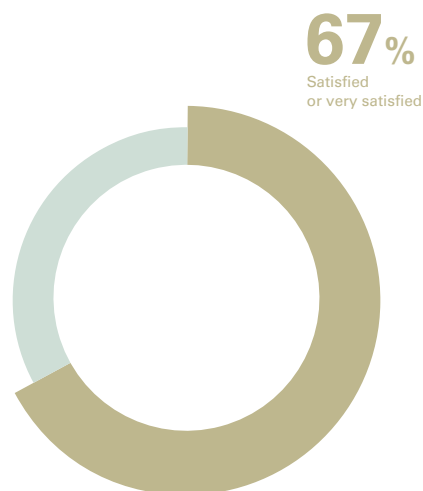


Figure 2 - Life satisfaction of 6- to 16-year-olds in Luxembourg during the pandemic

Children's reported life satisfaction significantly decreased

Figure 1 and Figure 2 represent general life satisfaction ratings before and during the pandemic as reported by children during the pandemic. Asked how satisfied they felt with their life before the pandemic, 96% of the children responded that they felt satisfied or very satisfied. Asked to rate the satisfaction with their life during the pandemic, only 67%

indicated being satisfied or very satisfied with their lives.

The analyses of the open questions of the questionnaire as well as of the interviews suggest that many children were not happy during the pandemic.

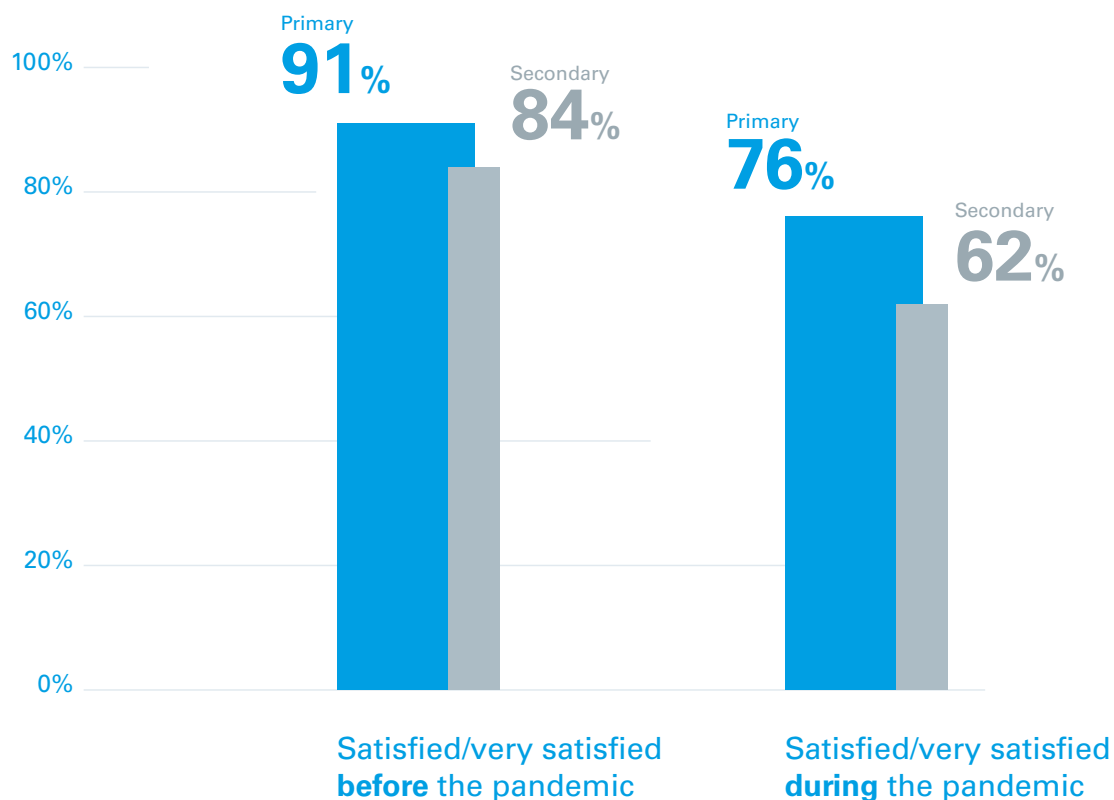
-  *Hu mech oft net gutt gefillt. I often didn't feel well (girl, 14)*
-  *Das Gefühl zu haben, dass es nie besser wird, weil fast alles wieder öffnet und deswegen eine 2. Welle kommen wird. Mit Sicherheit. The feeling that it will never improve because almost everything will open and therefore, there will be a second wave. With certainty. (girl, 13)*
-  *Dieses graue und dunkle Gefühl, als ob man in einer Blase feststeckt und nicht mehr raus kommt. This grey and dark feeling that one is stuck in a bubble and cannot get out. (girl, 14)*
-  *Le pire est d'être enfermé. The worst is being locked up. (boy, 8)*

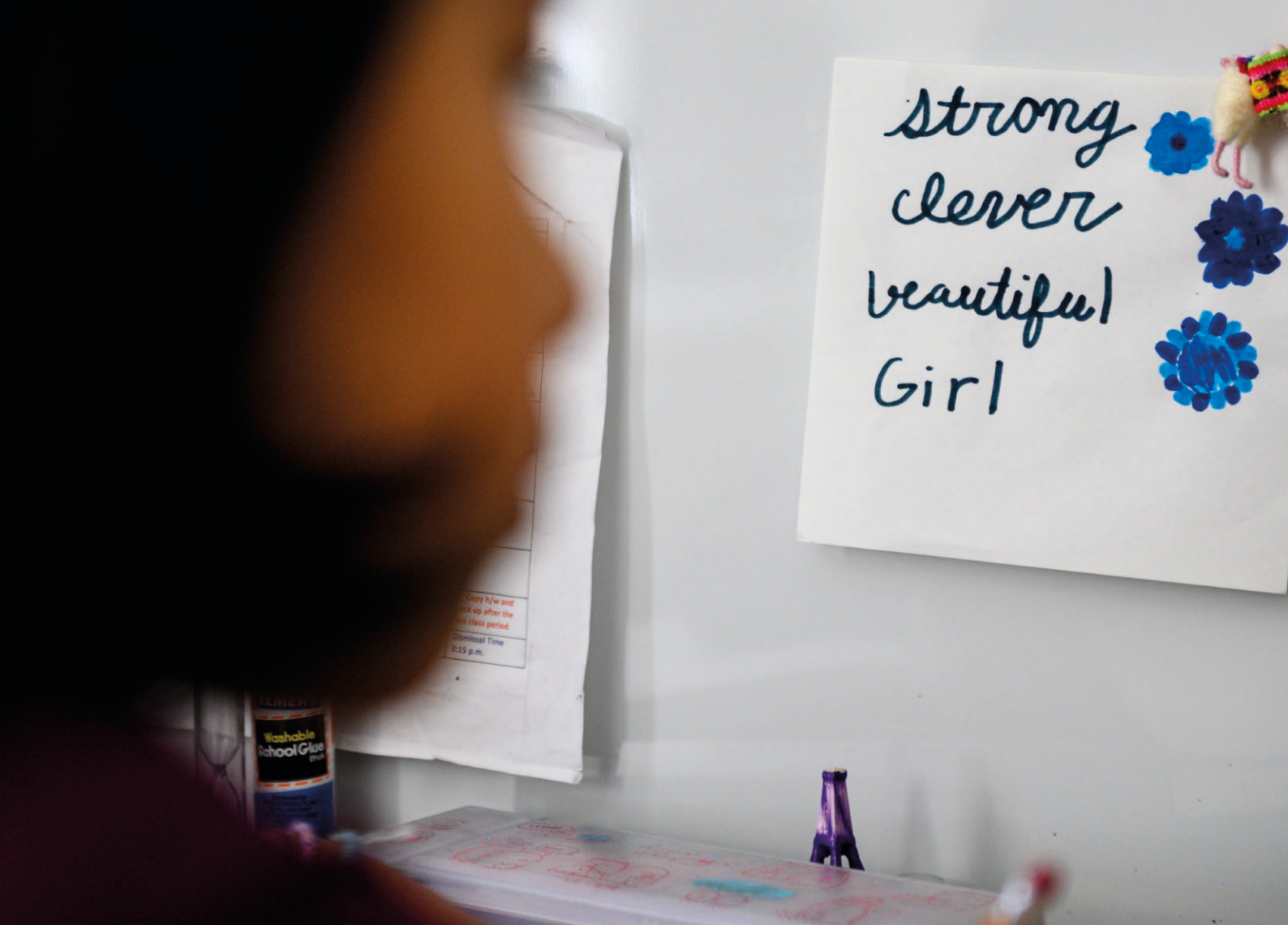
Like the assessed life satisfaction, the reported satisfaction with schooling dropped. Before the pandemic, 91% of the primary school children and 84% of those in secondary school reported being satisfied or very satisfied with school. The analyses showed a significant drop in these satisfaction rates during the pandemic: 76% of children in primary school and 62% in secondary school indicated being satisfied or very satisfied (Figure 3). It is important to note that 93% of the participating primary and secondary school children indicated that they were “good” or “very good” at school or at least as good as their peers, and that 65% stated that achieving well was important or very important to them.



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Figure 3 - School satisfaction before and during the pandemic according to the educational level





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Certain groups of children reported significantly lower levels of emotional well-being during the pandemic than others

Results suggest that girls, older children and children from lower socioeconomic backgrounds were at increased risk of lower levels of emotional well-being during the pandemic compared to their peers. Descriptive statistics (including means and standard deviations) of these groups on the emotion well-being indicators are presented in Table 1. In each case, higher scores indicate more frequent worries or negative feelings.

Girls reported significantly more frequent negative feelings during the pandemic than boys. Older children (aged 12-16) reported

significantly more frequent worries and negative feelings during the lockdown than younger children (aged 6-11). In relation to socioeconomic status, the analysis conducted on a subsample of 84 participants, showed that children from disadvantaged families (HISEI³ < 37) reported being significantly more frequently worried than children from affluent backgrounds (HISEI > 85).

These findings might suggest that indirect effects of the COVID-19 outbreak appear to hit some groups of children harder than others.

3 HISEI corresponds to the higher ISEI score of either caretaker or to the only available caretaker's ISEI score.

Table 1 - Summary descriptive table for emotional well-being indicators by group

	Gender		Age group		Socioeconomic status	
	Boys n = 289	Girls n = 383	6 to 11 years n = 411	12 to 16 years n = 269	High n = 44	Low n = 40
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Worries	2.7 (2.4)	2.9 (2.7)	2.4 (2.3)	3.5 (2.8)	2.5 (2.3)	4.2 (3.1)
Negative feelings	3.7 (2.5)	4.2 (2.8)	3.6 (2.4)	4.5 (3.0)	3.7 (2.5)	4.1 (2.5)

Note. The possible maximum score on the emotional well-being measures was 12 in each case. Higher scores indicate more frequent worries or negative feelings. Values in bold mean that group differences within the respective category (i.e. gender, age group, socioeconomic status) were significant ($p < .05$).

- 💬 *For me, the biggest, biggest difference is definitely the annoyance of you being trapped in your house. And I don't feel free or safe. I just feel really pressured just to stay inside and not open my front door and go out or stuff. (girl, 15)*
- 💬 *I was a bit anxious. Some people freaked out and they freak out if you get close to them. (boy, 16)*
- 💬 *One of the better things is, for example, I take more care of myself now and in general, all the stuff that makes you feel comfortable like waking up at whatever hour and dressing up in whatever you want. (girl, 11)*



Significant relationships emerged between factors from different spheres of influence and child well-being

The analysis further explored factors that might influence child well-being during the pandemic. It was based on the multi-level approach model of UNICEF (2020) which explains that children's well-being is influenced by various factors of different spheres such as activities, relationships, resources, policies and contexts. In the COVID-Kids project questionnaire, 20 potential factors were explored (Engel de Abreu, et al. in prep) and of these, four are of particular relevance for this report: the degree of difficulty and the quantity of school work during remote teaching; the content of school work during remote teaching; the fear of becoming ill, and the satisfaction with the way adults listen to children.

The correlation coefficients (Pearson Product-Moment correlation) between these four factors and the reported indicators of subjective well-being are represented in Table 2. 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).

The correlational analysis showed the following:

- Difficulty and quantity of school work (higher scores meaning school work being judged more difficult and/or much) correlated negatively with school satisfaction (-0.33) and positively with frequencies of worries (0.34);
- Content of school work (higher scores meaning that school work being judged as more interesting) correlated positively with school satisfaction (0.35);
- Fear of becoming ill (higher scores meaning more frequent fears) correlated positively with frequencies of negative feelings and worries (0.35 and 0.31 respectively);
- Satisfaction with the way adults listen (higher scores meaning higher levels of satisfaction) correlated positively with life and school satisfaction (0.24 and 0.24 respectively) and negatively with the frequencies of negative emotions (-0.29).

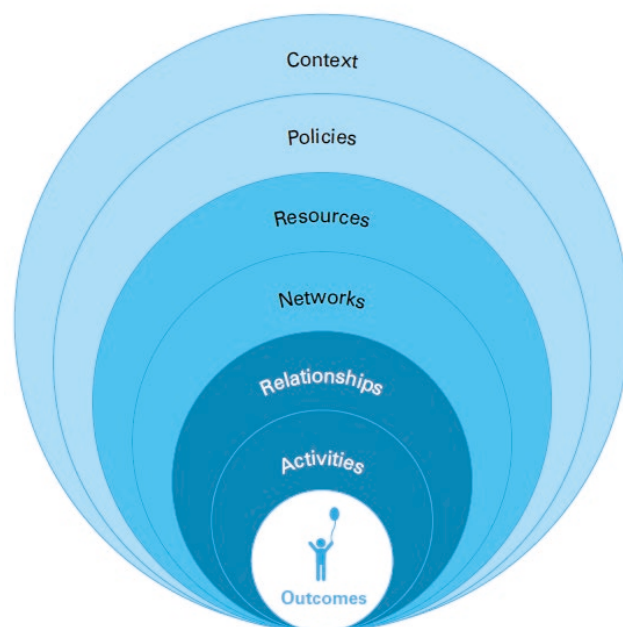
Table 2 - Pearson correlation coefficients (r^2) for the relations between four key predictor factors and the subjective well-being indicators (N = 680, values in bold are considered to be significant)

Predictor factors	Subjective well-being indicators			
	Life satisfaction	School satisfaction	Negative feelings	Worries
Difficulty and quantity of school work during the pandemic	-0.13	-0.33	0.29	0.34
Content of school work during the pandemic	0.14	0.35	-0.21	-0.14
Fear of becoming ill during the pandemic	-0.11	0.02	0.35	0.31
Satisfaction with how adults listen to children during the pandemic	0.24	0.24	-0.29	-0.18

Note. A correlation coefficient of .30 or above can be considered a moderate correlation.

 *The worst is schoolwork, because it takes up most of my day and I don't really like doing schoolwork that much. It's because there's a lot of schoolwork and it's sometimes tiring. For some worksheets, it's fun and I feel well and others it's more boring. I get tired a lot more often. But I feel like there's more homework.*
(boy, 10)

 *The worse is obviously that you hear a lot about the people and dying people in the news and that's really sad. I feel like it's all just about that, like. You don't really hear good news.* (girl, 16)



Multi-level approach model of UNICEF (2020)



Children missed their friends and their family most during school closure and confinement

When children were asked to rate how much (ranging from “not at all” to “very much”), they missed a range of people and things during the confinement, the majority, irrespective of their educational level, indicated missing family and friends a lot to very much (Figure 4).

Figure 4 - Percentage of the primary (blue) and secondary (grey) children indicating what they missed “a lot” or “very much”

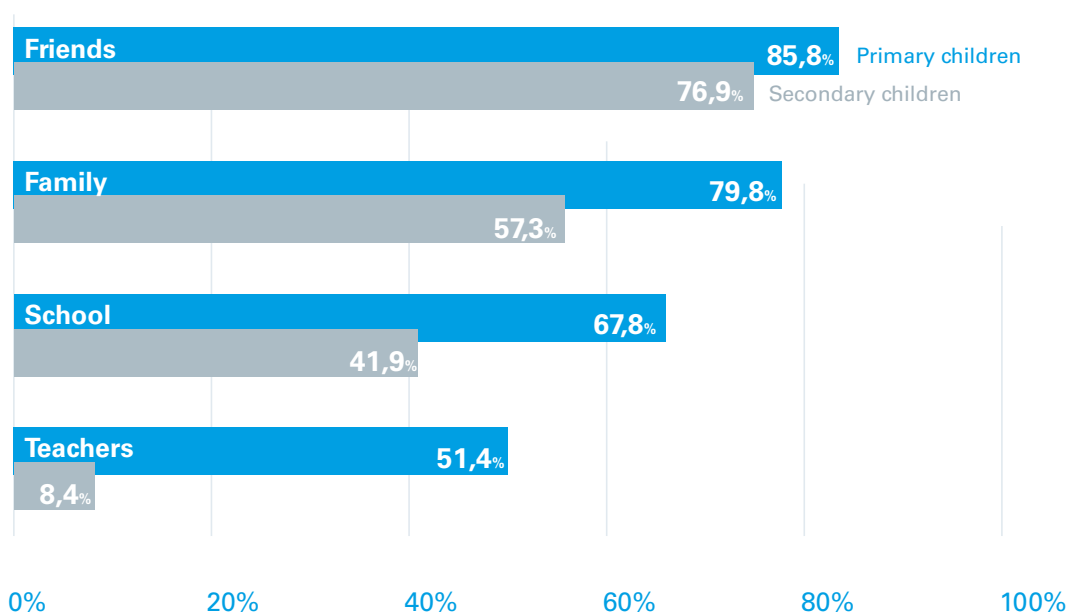
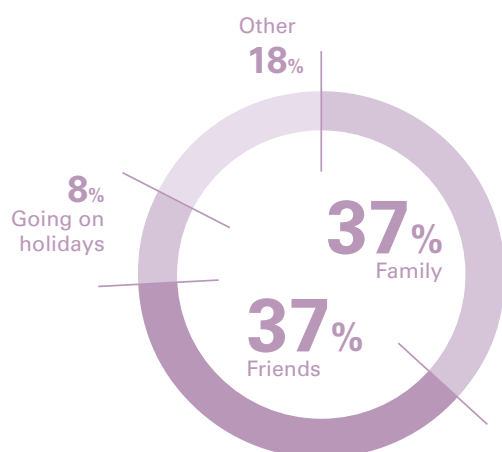


Figure 5 - Percentage of all children indicating what they missed “the most”



When asked to select the one thing they most missed, the two most frequent answers were friends and family: of all the children, 37% indicated missing “friends” the most and 37% missing “family” (Figure 5).

Figure 6 and Figure 7 represent this data according to educational level. Findings indicate that children attending primary school missed their family most and children attending secondary school missed their friends most.

What I miss the most is definitely my friends. Because that's how I spend my time. I spend my time with my friends, having fun, going to the parks, cinemas after school and even having activities with them like training at the football club, play or going to the park with them. (boy, 14)

Figure 6 - Percentage of primary school children indicating what they missed "the most"

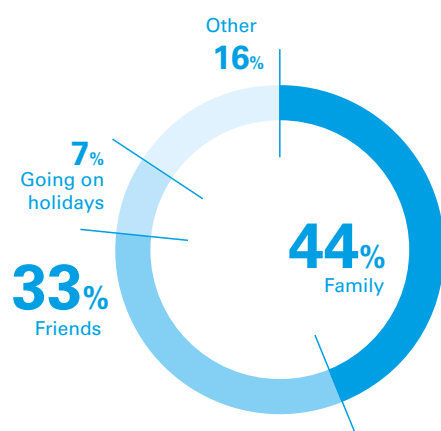
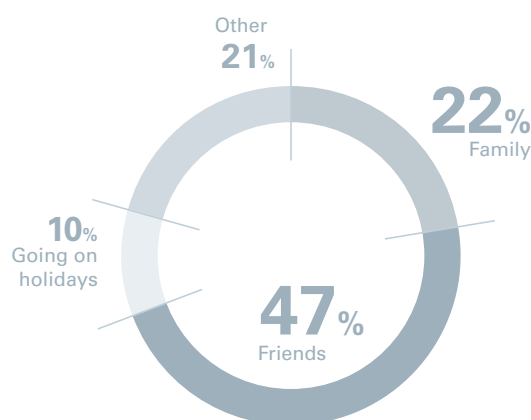


Figure 7 - Percentage of secondary school children indicating what they missed "the most"



 *I miss my two grandmas. I miss them very much because they're in Greece and a long way and I hope we're going to be allowed to go on a plane to go because we can't go by car. (girl, 10)*

 *On ne peut pas aller voir nos grands-parents. We cannot go and see our grandparents. (boy, 10)*

 *Dat schlëmmsten ass dat ech net bei meng Frënn kann spille goen oder si bei mech. The worst is that I cannot go to my friends to play nor can they come to me. (girl, 6)*

Before the pandemic, 42% of the primary school children attended non-formal education institutions (e.g. SEA) and 44% clubs (e.g. sports, scouts) and special schools (e.g. music school). Similarly, 41% of the secondary school children attended clubs and special schools. The majority of the children (71% of the primary and 62% of the secondary school) attended these institutions several times a week. Clubs and special schools were much missed by these children: 63% of the primary school children and 68% of the

secondary school children reported that they missed them a lot or very much.

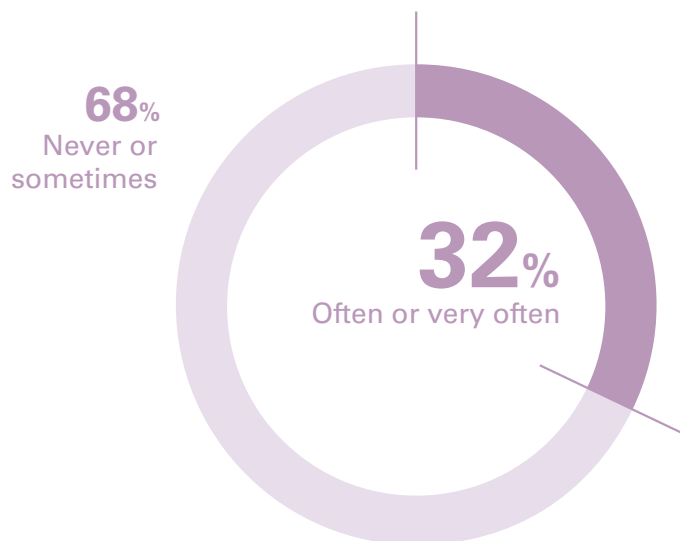
The interviews showed that children missed their families and friends a great deal. In addition, children mentioned that they missed practising sport. They mentioned basketball, rugby, judo, karate, badminton, climbing and swimming and doing these activities together with their friends. During the pandemic, some reported that they went for regular runs, cycled or did push-ups at home to stay fit.

 *I definitely missed playing rugby. I missed holding the ball, running into contact, everything. It was really hard because I have rugby three days a week. Without training you feel a lot more stressed. (boy, 15)*

 *Não poder ir para o futebol. Not playing football. (boy, 9)*

Over a third of the children reported concerns of falling ill during the pandemic

When asked to rate how often the statement “That you or someone you know well will get sick” worried them during the times of the pandemic (in Luxembourgish “mécht Dir Angscht/Suergeren”), 32% of the children gave the answer “often” or “very often”. Pointedly, this percentage was higher than for children in Germany, Switzerland and Brazil who took part in the same survey.



Asked in the questionnaire whether they or a household member had been ill with COVID-19, 14% confirmed. Fear of becoming ill and infecting others was also a recurrent theme of the interviews.

 *You're scared. You don't want to catch the virus and you don't want to spread it to others. So, you're like we are really scared, and you stay inside. You don't go out. (girl, 10)*

 *You have to pay attention all the time to not get contaminated by the Coronavirus, like always think about washing your hands and not coming near. It's just something you always have in your mind.” (girl, 10)*

Figure 8 - Fear of becoming ill during the pandemic in 6- to 16-year-olds in Luxembourg



Children reported working three to four hours a day on school work and not everybody indicated coping well with it

During the confinement, 65% of the primary school and 98% of the secondary school children worked on online platforms where the teachers set mainly reading and writing tasks. As previously shown, the quantity of the school work mattered: 28% of the younger and 45% of the older children rated the amount as being frequently "too much". At the same time, the children spent less time on school work than before the pandemic. In the Luxembourgish education system, depending on the school, children have thirty 45 to 55-minute-lessons a week, amounting to 22.5 to 27.5 hours. On average, the children in primary school spent 3 hours 20 minutes and those in secondary school 4 hours 20 minutes per day on school work during the school closure. This difference between the primary and secondary school children was statistically significant. Notably, there were

large differences in the actual time spent working between the children as indicated in Table 3.

The degree of difficulty of the school work seemed to be a further issue of concern. When asked to indicate if they coped well, 63% of the primary school and 44% of the secondary school children reported "coping well". Furthermore, 18% of the younger and 26% of the older children indicated that they found it often or very often difficult to understand their school work. By contrast with pre-COVID schooling, teachers were not there to help immediately. The frequency of contact with the teacher was related to the school. On average, the primary school children had contact with their teacher(s) once or twice a week, those in secondary three to four times a week.

Table 3 - Children's home-schooling experiences

	Primary school children	Secondary school children
Children working on online platforms	65%	98%
The amount of school work is frequently "too much"	28%	45%
The school work is often or very often not understandable	18%	26%
The school work is often or very often interesting	45%	24%
Number of hours worked daily	3 hours 20 minutes	4 hours 20 minutes
One hour or less	9%	5%
Between 1 and 4 hours	71%	54%
More than 4 hours	20%	41%

The interview excerpts provide insights into the children's varying experiences. At the time of the interviews in May 2020, the secondary school children had been back at school for a week or two, being one week at school, working one week from home. By contrast,

the primary school children had not returned to schools since their closure on 16th March 2020. The children were all looking forward to returning on 25th May.

-  *I missed everything, school, the lunch breaks where we could play together, friends. (boy, 10)*
-  *The worst is that like, I cannot work while at home I cannot think, it's stressful like working at home. (boy, 10)*
-  *My productivity has gone up a lot during this quarantine, because you have nothing better to do so why not just like do your work for next week or something. (boy, 16)*

Fourteen of the 22 children stated that their teachers had set them more work than before the pandemic and four explained that it felt like much more although it may actually have been the same amount. Two mentioned they had less work though more difficult one. Some children noted that they got very tired because they worked on screens and that it took them all day to complete their work. Others stated that they only worked a few hours in the afternoon. While every child mentioned using several online platforms, online instruction - seeing the teacher online - seemed to be rare. The secondary school children mentioned online live instruction more frequently than the primary school children. The latter saw their teacher online on average one hour a week. This does not mean, however, that this was the only opportunity to have contact with the teacher. Many primary school children reported that they and their parents interacted daily with teachers on the classroom apps.

Almost all children explained that they coped well with the new technologies. Issues encountered were miscommunications between them and the teachers or issues related to organization owing to the number of different apps used. Some children had to use up to three different apps. Furthermore, some voiced frustration with the time it took to get answers from teachers. When they had questions, they sent messages to the teachers and had to wait for a reply. They were not used to this waiting time. Their overall feeling was that they coped with home schooling but that it was difficult. Some had little help from teachers and parents and others found it difficult to organize their work. By contrast, some of the secondary school children seemed to enjoy their newly gained flexibility and ability to organize their work.



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Secondary school children were less "active" during school closure and confinement than primary school children

In the COVID-Kids questionnaire, children were asked to indicate how often they engaged in particular activities during the confinement. Multiple answers were possible. Figure 9 presents the percentage of children who reported engaging "often" or "very often" in these activities. The secondary school children indicated listening to music or spending time

"doing nothing" more frequently than primary school children (74% vs. 47% and 46% vs. 15%, respectively). By contrast, the children from primary school indicated playing or spending time outdoors more frequently than those from secondary school (86% vs. 35% and 69% vs. 54%, respectively).

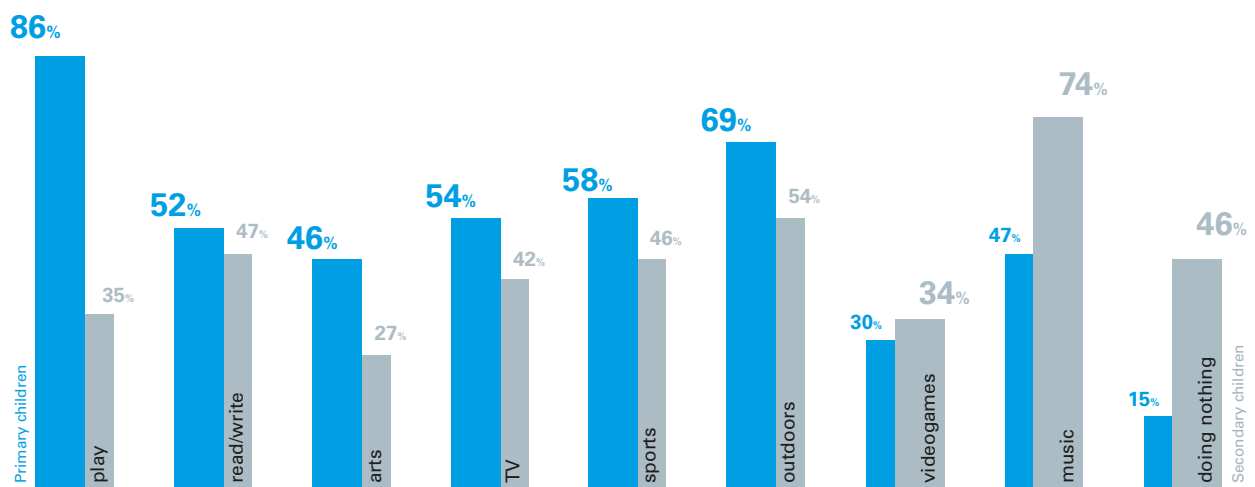


Figure 9 – Percentage of primary (blue) and secondary (grey) school children indicating engaging in particular activities during the pandemic

Before the pandemic, primary school children spent on average 0.9 hours and those in secondary 2.4 hours on the internet. During the pandemic, primary school children spent 2.6 and secondary school children 6.3 hours on the internet or the computer. The data further indicates a significant relationship between “doing nothing” and emotional well-being: children who spend more time “doing nothing” were more likely to also report negative emotions and worries.

Comments in the open-ended questions testified, on the one hand, to children's pleasure with unlimited screen time and, on the other hand, to their awareness that they spent too much time on screens. The interviews suggest that all children spent more time on the internet than before the pandemic. They chatted to friends and played videogames. Some mentioned that their phone was always on. A few complained of parental controls limiting time on the internet.

-  *Ich bin zu oft auf Social Media und fürchte, dass ich süchtig werde. I am too often on social media and am afraid to become addicted. (boy, 15)*
-  *Ech ka meng Frënn just iwwer den Internet gesinn. I can only meet my friends over the internet. (girl, 9)*
-  *Ech hunn vill fräi, hunn Zäit fir um Internet ze surfen, Videoen ze kucken an online Spiller ze spillen. En plus hunn ech bëssi Gewiicht ofgehall well ech mech méi gesond ernären an all Dag spadséieren ginn. I have a lot of free time, have time to surf the internet, watch videos and play online games. Furthermore, I have lost some weight because I eat better and go for a walk every day. (boy, 16)*
-  *One thing I don't like that my dad did is, because we're on the internet too much, he turned off the internet from 7:15 to 8:15. And then it opens again and then it closes at 11. Something I don't like because I stay up till like 4. (girl, 10)*
-  *The most different is definitely not being allowed to leave the house. It definitely limits your accessibility to parks, the school, malls or anything, going to the cinema or the pool. (boy, 14)*



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Give children a voice: their experiences vary and they have much of importance to say

The interviews demonstrated that the 22 children had varied experiences during the confinement. While the vast majority enjoyed spending more time with their family, particularly cooking and eating together, some also experienced more tension with some family members, especially siblings. Other children realized that their parents were not always able to spend time with them because they also worked from home. The following five quotes illustrate the varying experiences.

-  *It's nice to spend time, quality time with my family. We talk more, eat together and do more activities as a family. And that makes me a lot happier. You can ask for your favorite food. And you have, you can eat like the portion you want, because in school sometimes they have a lot, like a big portion and that then, all the food left goes to the trash and it's like a waste of food, so that's not good. (girl, 12)*
-  *It's definitely a bit more stressful at home, now because we're always in each other's faces, especially since we live in such a small apartment. It's like we have nowhere to go to. We just have our thoughts to ourselves. It's frustrating but it's tolerable. (boy, 15)*
-  *Sometimes I get a little lonely because there's no one to fight with or anything. I try to talk to my friends and roam around the house and try to find things to do. (girl, 10)*

 *My dad works for Amazon, he has like, like about five to 10 calls every day and you have to be silent. And you have to think about others. And until last week, my mom was doing training for coding and [...] she had to do it from home. So, both my parents were working on their computers, and me and my brother would normally play or try to do our homework by ourselves. (boy, 10)*

 *I think it didn't change much, because my father works at home and my mom is always here at home as well so, for, at least for me it didn't change much. (boy, 15)*

Over 85% of the children completed the two open-ended questions at the end of the questionnaire. This high number suggests that the children wished to express themselves. Asked what the best thing during the pandemic was for them, many children wrote "time with their family" and "sleeping in". Children also often mentioned "time for

themselves" or the "quietness" and "calm". This may suggest that they lived a busy life full of activities before the pandemic.

During the interviews children also commented on the advantages of taking their own food to school and the use of technology in school.

 *The tests don't have as much weight as before, because now we can remove the worst test and I think this improves the way you write because otherwise I always stress that I have to write a good test. And now we can it's not as stressful as before. (boy, 15)*

 *One thing that I would want to stay the same would be having the technology that we use during this quarantine meaning laptops, tablets, etc. (boy, 10)*

Asked what factors children would keep after the pandemic, they explained that they wished to spend increased quality time with their family. Asked what advice they would give policy-makers in the event of future lockdowns, several children responded that they liked the increased flexibility and their opportunity to work independently.



— Recommendations for policy and practice

Child well-being

- Ensure that children and parents have access to relevant prevention and response services to promote child well-being and their long-term mental health.
- Provide practical support to parents, including how to talk about the pandemic with children and how to manage their own mental health and that of their children.

Communication and information

- Encourage parents to create opportunities to interact with family members and friends.
- Talking to children about COVID-19 is critical to reduce their levels of worry. When information and communication is unclear or contradictory, it causes fear and confusion.
- Invest in clear, accessible and age-appropriate communication with children on matters that affect them, such as changes to health orders or education arrangements.

Education

- Support schools in organizing home schooling so that students have regular contact with their teachers and classmates. Ensure that they are doing well, have access to teaching materials, understand the tasks, encourage and motivate.
- Ensure that teachers have support and training on remote teaching and means of supporting their students.
- Ensure that schools convey age-appropriate messages on well-being and stress prevention to children.
- Help educational actors introduce social emotional learning modules, such as mental wellness.
- Provide ongoing remedial programmes to mitigate learning loss and prevent the widening of gaps in learning.





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Resilience

- Allow children to access and harness their social support networks, including school attendance, clubs, sports facilities, play-grounds, and extra-curricular activities and events, with social distancing measures in place.

Uneven impact

- Take account of the varying experiences of children when designing response measures. All strategies should be based on analysis which is sensitive to gender, age and socioeconomic background.
- Invest in further research to better understand the experience of the most vulnerable children in this pandemic.

Participation

- Listen to children and encourage them to express their concerns and ideas because satisfaction with the ways adults listen to children promotes well-being.
- Make space for meaningful participation of children: create platforms and mechanisms for children to safely share their views on issues concerning them.
- Conduct children's rights impact assessments: each decision, law, and policy made in the context of the pandemic should consider the impact it has on children. Children's views must be solicited and taken into account.
- Collect disaggregated data on children and invest in research to better understand the impact of COVID-19 on their well-being.



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Appendix 1

Question examples from the online questionnaire COVID-Kids (Kirsch, Engel de Abreu & Neumann, 2020).

How satisfied are you normally with your life at school?

Very dissatisfied	
Not satisfied	
Satisfied	
Very satisfied	

Which of the following are you happy with during the time of the corona virus? (Choose one answer in each line.)

						I'd rather not say
The feeling to be safe	0	0	0	0	0	0
The freedom you have	0	0	0	0	0	0
The way adults generally listen to you	0	0	0	0	0	0
Your health	0	0	0	0	0	0

Here is a list of words that describe various feelings. How often did you feel like this during the time of the corona virus? (Choose one answer in each line.)

	Almost never	Sometimes	Often	Very often	I'd rather not say
Sad	0	1	2	3	0
Bored	0	1	2	3	0
Lonely	0	1	2	3	0
Anxious/ worried	0	1	2	3	0
Other: _____					

*How often do the following things worry you during the time of the corona virus?
(Choose one answer in each line.)*

	Almost never	Sometimes	Often	Very often	I'd rather not say
That something bad will happen to you or someone you know well	0	1	2	3	0
That you or someone you know well will get sick	0	1	2	3	0
That you will perform less well at school					0
That you will have less money	0	1	2	3	0
That you will no be able longer buy everything	0	1	2	3	0
That your life will be different than before	0	1	2	3	0
Other: _____					

Appendix 2

Demographic and background characteristics of study participants (N = 680)

	Frequency
Primary students	67%
Gender (girls)	57%
Residence area (village)	64%
Dwelling (with outside area)	81%
Languages spoken at home	
Luxembourgish	64%
French	27%
Portuguese	15%
English	14%
German	10%
Other	15%
More than one language spoken at home	39%
Socioeconomic status	
HISEI 1-37 (low)	7%
HISEI 38-63 (middle)	16%
HISEI 64-89 (high)	77%
Siblings (yes)	80%
Pets (yes)	55%
Own bedroom (yes)	87%
Internet at home (yes)	91%
Own computer or tablet (yes)	61%
Room to study (yes)	84%
School status at time of survey completion (fully closed)	60%
At least one parent at home during lockdown (yes)	90%
Illness due to COVID self or household member (yes)	14%
Subjective school achievement rating	
Rather bad	1%
Not so good	7%
As good as the others	38%
Good or very good	55%
Frequency of contact with teachers during school closure	
Hardly ever	14%
1-2 time per week	33%
3-4 times per week	24%
Daily	29%

	Frequency
What children missed the most during the time of school closure	
1. Friends	37%
2. Family	37%
3. Going on holiday	8%
4. Clubs (e.g. football)	6%
5. Activities (e.g. going to the cinema)	3%
6. School	3%
7. Teachers	1%
8. After school care (e.g. maison relais)	1%

	Mean	SD
Age	10.54	3.12
Household size (including self)	4.36	1.10
Number of weeks school was closed at time of survey completion (weeks)	8.47	1.88
If school was open at time of survey completion: for how long (weeks)	1.46	1.08
Hours/day spend on school work during school closure	3.58	1.75

Note. HISEI corresponds to the higher ISEI score of either caretaker or to the only available caretaker's ISEI score.

