

Reopening of schools after Covid-19 closures

A teacher perspective

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Data report - teachers

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01 Introduction

The risk of spread of Covid-19 in 2020 and 2021 has put schools, teachers and students as well as parents under pressure. In March 2020, the children were sent home, and shortly hereafter a New Law and Act on Emergency Teaching (BEK no 242) was enacted. In a first phase, all school activities had to be conducted at distance and away from the school premises, in the setting of the children's homes. After five weeks of closure, Danish schools were ordered to undertake a controlled reopening for the youngest pupils (zero to fifth grade), with older pupils (sixth to tenth grade) following four weeks later, in settings that met specific criteria for physical and social restrictions in line with official health and hygiene recommendations. The new settings in this second phase of transformation forced teachers to be creative – for instance, to facilitate outdoor learning with small groups of pupils.

This two-phase transformation of the school setting has disrupted the traditional ways of organizing activities in schools and, probably too, the roles of teachers and students and the conditions for and impact of learning through play. Furthermore the 2-phase transformation of school settings may have had a number of consequences for the social-emotional conditions of the children. A survey of parents' and children's experiences during the lockdown (Nødundervisning under corona-krisen – et elev- og forældreperspektiv) that was completed in the middle of the first phase, shows that on the one hand both parents and children express a feeling of being well taken care of. On the other hand, the children were severely challenged on their wellbeing, mental health, self-efficacy, etc. These challenges seemed to be related to a number of conditions, like fear of illness, stress from the closure, academic stress, and lack of perceived coping, etc. However, differences across the participating municipalities and schools also indicated that the different strategies applied to ensure reassuring and playful learning environments were of great importance.

This report describes the results of a second quantitative data collection among teachers in the Danish elementary school in the project “A window of change: transformations of playful learning environments in kindergarten and primary school during Covid-19”. We thank the LEGO Foundation for the research grant that made the data collection possible.

01.01 The projects' purpose and research question

The purpose of the “A window of change: transformations of playful learning environments in kindergarten and primary school during Covid-19” project is to follow the complex processes of rethinking the playful learning environments in kindergartens and schools in order to learn from the Covid-19 experiences based on the idea of ‘building back better’

The research question is:

What are the conditions for playful learning in kindergarten and primary school after the global outbreak of Covid19?

This research question is divided into three sub-questions:

- 1) What characterizes the learning environments and pedagogical approaches in kindergarten and primary school, and how are they redefined over time as a respond to the two-phase disruption during Covid-19?
- 2) How are these environments and pedagogical approaches affecting children's socio-emotional conditions, positively or negatively?
- 3) Which early experiences from Covid-19 guide iterations and re-definitions of playful learning environments at later stages, and which resources and strategies are used to negotiate and establish both learning environments and pedagogical approaches?

Methodically, the project is based on a mixed method study with:

- 1) Interviews in August and December with the following actors in each of five participating municipalities:
 - a. 2 school leaders
 - b. 2 kindergarten leaders
 - c. 4 school teachers
 - d. 4 kindergarten teachers
 - e. 4 parents of children in school
 - f. 4 parents of children in kindergarten
- 2) Observations in start September, end of October and start December (two days each time) in each of five participating municipalities:
 - a. 1 kindergarten
 - b. 1 grade 0 class
 - c. 1 grade 1 class
 - d. 1 grade 5 class
 - e. 1 grade 8 class
- 3) Go along interviews with 4 children in kindergarten in start September, end of October and start December in each of the five municipalities
- 4) Go along interviews with 4 children in grade 0 in start September, end of October and start December in each of the five municipalities
- 5) Go along interviews with 4 children in grade 1 in start September, end of October and start December in each of the five municipalities
- 6) Survey to children from 3rd to 9th grade of schools (November 2020)
- 7) Survey to children and parents of children in kindergarten (November 2020)
- 8) Survey to school and kindergarten teachers (November 2020)

This report conveys the data from the teachers. Later analyses will help elucidate more complex relationships and contexts. Altogether, this provides a solid basis for understanding the situation in schools.

University of Southern Denmark is responsible for all data processing. With regard to data storage

and data management, agreements have been made with the university's legal department, which ensures the anonymity and integrity of the informants. For the sake of participants' privacy, results from units with fewer than 10 responses are not disseminated.

Our primary target group is children, teachers and leaders in the participating schools. This report and other publications should be seen as a way of thanking participants for taking the time to engage in interviews, to distribute and answer the survey and for providing access to collections of observational data.

Our secondary target group is the entire sector and all school and kindergarten stakeholders who get a solid picture of the situation. The sector deserves the most robust feedback possible considering the immense task they have undertaken during the two phases of closure and reopening.

On behalf of the project team at University of Southern Denmark and Aarhus University,

Professor and project leader,

A handwritten signature in black ink, appearing to read 'Ane Qvortrup'.

Ane Qvortrup

02 Data

02.01 Participating municipalities

Municipality	Frequency (N)	Percent (%)	Cumulative (%)
Toender	12	3.43	3.43
Jammerbugten	40	11.43	14.86
Odense	22	6.29	21.14
Kolding	257	73.43	94.57
Norrdjurs	15	4.29	98.86
Other	4	1.14	100.00
Total:	350	100	

02.02 Respondents

330 (94%) respondents answered the questionnaire, and 20 respondents (6%) answered parts of it. 85 of the respondents (24%) were men and 265 of the respondents (76%) were women.

275 of the respondents were teachers (79%) and 75 of the respondents were pedagogues (21%). The questionnaire was shorter for pedagogues who did not have to answer questions clearly addressed to teachers, e.g. questions about planning the teaching. Questions that required knowledge of the situation before coronavirus compared to after were not asked to respondents who had been employed during the corona crisis. The questionnaire was only answered by permanent teachers and pedagogues.

126 respondents (36%) are teachers/pedagogues for the youngest students (grade 0-3), 89 respondents (25%) are teachers/pedagogues for the middle group of students (grade 4-6), while 104 respondents (30%) are teachers/educators for the oldest students (grade 7-9). 31 respondents (9%) stated that they had worked equally with several age groups in the last 14 days up to answering the questionnaire.

02.02.01 *Years of experience as teachers/pedagogues in primary school*

	Frequency (N)	Percentence (%)	Cumulative. (%)
0-2 years	18	5.14	5.14
3-5 years	31	8.86	14.00
6-10 years	46	13.14	27.14
11-15 years	76	21.71	48.86
16-20 years	77	22.00	70.86
21-25 years	49	14.00	84.86
26-30 years	23	6.57	91.43
More than 30 years	30	8.57	100.00
Total:	350	100	

03 Descriptive statistics

03.01 The students' experiences of the situation

Initially, we ask students how they experience the situation with coronavirus. We are interested in knowing how it affects their everyday lives and whether they fear getting sick. In addition, we ask if they think the situation with coronavirus is being taken seriously enough and/or takes up too much time.

03.01.01 *How much is the coronavirus affecting your everyday life right now?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Nothing	1	0.29	0.29
2	8	2.29	2.57
3	18	5.14	7.71
4	22	6.29	14.00
5	36	10.29	24.29
6	46	13.14	37.43
7	70	20.00	57.43
8	85	24.29	81.71
9	40	11.43	93.14
A lot	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	350
Average	6.81
Std. deviation	1.9747174

03.01.02 *I am afraid of getting sick*

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	31	8.86	8.86
Disagree	118	33.71	42.57
Agree	149	42.57	85.14
Totally agree	52	14.86	100.00
Total:	350	100	

Summarized statistics

Observations	350
Average	2.63
Std. deviation	.841591771

03.01.03 *The students are afraid of getting sick*

	Frequency (N)	Percentage (%)	Cumulative (%)
Totally disagree	32	9.14	9.14
Disagree	179	51.14	60.29
Agree	123	35.14	95.43
Totally agree	15	4.29	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.35
Std. deviation	.705171192

03.01.04 *I am afraid that my family/friends will get sick*

	Frequency (N)	Percentage (%)	Cumulative (%)
Totally disagree	10	2.86	2.86
Disagree	54	15.43	18.29
Agree	170	48.57	66.86
Totally agree	115	32.86	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	3.12
Std. deviation	.765985544

03.01.05 *Many students are nervous about their family or friends*

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	13	3.71	3.71
Disagree	167	47.71	51.43
Agree	150	42.86	94.29
Totally agree	19	5.43	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.50
Std. deviation	.659260478

03.01.06 *I feel insecure when I am at the school due to the risk of coronavirus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	38	10.86	10.86
Disagree	168	48.00	58.86
Agree	106	30.29	89.14
Totally agree	37	10.57	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.41
Std. deviation	.820399916

03.01.07 *I think we will manage to get through all this*

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	13	3.71	3.71
Disagree	49	14.00	17.71
Agree	217	62.00	79.71
Totally agree	70	20.00	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.99
Std. deviation	.70083769

03.01.08 *I think we are talking too much about the coronavirus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	34	9.71	9.71
Disagree	206	58.86	68.57
Agree	93	26.57	95.14
Totally agree	16	4.57	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.26
Std. deviation	.693301709

03.01.09

I think we are being too relaxed about the coronavirus

	Frequency (N)	Percentence (%)	Cumulative (%)
Totally disagree	35	10.00	10.00
Disagree	178	50.86	60.86
Agree	103	29.43	90.29
Totally agree	33	9.43	99.71
Not answered	1	0.29	100.00
Total:	350	100	

Summarized statistics

Observations	349
Average	2.38
Std. deviation	.792475648

As shown in section 04.01, a large proportion of teachers gravitate towards the high values on a 10-point scale from “not at all” to “a lot” when it comes to the question of how much the coronavirus affects their everyday lives. About 60% of the teachers are afraid of getting sick, while the remaining 40% are not. At the same time, a lot of the teachers (80%) are afraid their family/friends might get sick, while a little less than 20% are not concerned about family or friends getting sick. Fewer teachers assess that students are nervous. 40% assess that the students are nervous that they themselves will get sick, while it is 50% / 50% when it comes to whether the teachers think that the students are nervous about family/friends. 30% of the teachers think we talk too much about coronavirus and 40% do not think we take coronavirus seriously enough.

03.02 Sent home due to coronavirus infection

In section 04.02, we ask teachers if they have been sent home in the period between summer holidays and the time of data collection. We are interested in knowing whether they have been affected by the local closures that have taken place in specific schools and specific municipalities.

03.02.10 *Sent home once*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	280	80.00	80.00
Chosen	70	20.00	100.00
Total:	350	100	

03.02.11 *Sent home more than one time*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	308	88.00	88.00
Chosen	42	12.00	100.00
Total:	350	100	

03.02.12 *Some students have been sent home once*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	214	61.14	61.14
Chosen	136	38.86	100.00
Total:	350	100	

03.02.13 *Whole classes/groups of students have been sent home once*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	276	78.86	78.86
Chosen	74	21.14	100.00
Total:	350	100	

03.02.14 *Whole classes/groups of students have been sent home more than one time*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	343	98.00	98.00
Chosen	7	2.00	100.00
Total:	350	100	

03.02.15 *No one have been sent home*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not chosen	235	67.14	67.14
Chosen	115	32.86	100.00
Total:	350	100	

As can be seen from the tables 04.02.10-04.02.15, one fifth of the teachers have experienced being sent home in the period between the summer holidays and the time of data collection. 40% have had students who have been sent home, while a little more than 20% of the teachers have had entire classes sent home.

03.03 Teaching online/at distance

The teachers who have experienced being sent home are asked about their experience of teaching while they themselves or the students were home

03.03.16 *Did you teach online/at distance while you or the students were at home?*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	50	14.29	14.29
Yes	136	38.86	53.14
Not answered	164	46.86	100.00
Total:	350	100	

03.03.17 *How do you judge the decision to send yourself or the students home?*

	Frekvens	Procent (%)	Kumulativ (%)
Very bad	0	0.00	0.00
Bad	3	2.75	2.75
Neither/nor	12	11.01	13.76
Good	39	35.78	49.54
Very good	55	50.46	100.00
Total:	109	100	

Summarized statistics

Observations	109
Average	4.34
Std. deviation	.784339584

03.03.18 *How would you describe your possibility of offering satisfactory teaching whilst being sent home?*

	Frekvens	Procent (%)	Kumulativ (%)
Very bad	0	0.00	0.00
Bad	14	20.59	20.59
Neither/nor	16	23.53	44.12
Good	32	47.06	91.18
Very good	6	8.82	100.00
Total:	68	100	

Summarized statistics

Observations	68
Average	3.44
Std. deviation	.920453375

03.03.19 *How would you describe the students' ability to participate in teaching whilst being sent home?*

	Frekvens	Procent (%)	Kumulativ (%)
Very bad	6	1.71	1.71
Bad	11	3.14	4.86
Neither/nor	25	7.14	12.00
Good	56	16.00	28.00
Very good	5	1.43	29.43
Total:	103	100	

Summarized statistics

Observations	103
Average	3.42
Std. deviation	.955112886

03.03.20 *How would you describe your contact with colleges whilst being sent home?*

	Frekvens	Procent (%)	Kumulativ (%)
Very bad	3	2.75	2.75
Bad	10	9.17	11.93
Neither/nor	36	33.03	44.95
Good	50	45.87	90.83
Very good	10	9.17	100.00
Total:	109	100	

Summarized statistics

Observations	109
Average	3.50
Std. deviation	.888442803

03.03.21 *How would you describe your contact with students whilst students were at home?*

	Frekvens	Procent (%)	Kumulativ (%)
Very bad	7	3.78	3.78
Bad	23	12.43	16.22
Neither/nor	64	34.59	50.81
Good	72	38.92	89.73
Very good	19	10.27	100.00
Total:	185	100	

Summarized statistics

Observations	185
Average	3.39
Std. deviation	.96175393

As shown in the tables in this section, 40% of the teachers who have been sent home between summer holidays and the time of data collection have taught online/at distance. Half of these indicate that the possibilities of teaching have been good, while the other half indicates the opposite. Most of the teachers are positive when it comes to the students' possibilities of participating in teaching as well as the contact with colleges and students. However, a fifth of the teachers describe the contact with students as bad.

03.01 Rules and restrictions at school

In section 04.04, we examine teachers' experiences of rules and restrictions at school. We ask about their experience of whether there have been rules on hand washing, hand sanitizer, distance, etc. Furthermore, we ask about any changes in the students' school day, and whether they have had more resources/extra staff than before coronavirus.

03.01.22 *We have had more resources than before coronavirus (eg extra or long-term use of temporary staff, cleaning staff, etc.)*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	162	46.29	46.29
Yes	184	52.57	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.23 *Indoor and/or outdoor areas have been divided into zones*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	31	8.86	8.86
Yes	315	90.00	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.24 *We have had rules about extra hand washing*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	21	6.00	6.00
Yes	325	92.86	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.25 *We have had rules about use of hand sanitizer*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	23	6.57	6.57
Yes	323	92.29	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.26 *The parents have been denied access to the school*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	75	21.43	21.43
Yes	271	77.43	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.27 *We have had rules about physical distance*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	58	16.57	16.57
Yes	288	82.29	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.28 *The students have been divided into smaller groups*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	159	45.43	45.43
Yes	187	53.43	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.29 *The students' school days have been different than before coronavirus (eg changes in length, context, content, use of media, etc.).*

	Frequency (N)	Percentage (%)	Cumulative (%)
No	166	47.43	47.43
Yes	180	51.43	98.86
Not answered	4	1.14	100.00
Total:	350	100	

03.01.30 *Is the changes primarily justified in (Choose from the list what best suits your experience)*

	Frequency (N)	Percentence (%)	Cumulative (%)
Experiences from the closures	63	18.00	18.00
Experiences from the reopening	18	5.14	23.14
Conditions in the new situation	49	14.00	37.14
Extra ressources	2	0.57	37.71
Other things	15	4.29	42.00
None of the above	29	8.29	50.29
Not answered	174	49.71	100.00
Total:	350	100	

As can be seen from the first table in section 04.04, according to just over half of the teachers, extra staff has been deployed, while according to the remaining part of the teachers this has not been the case. More than 90% state that there have been rules about hand hygiene in the form of hand washing and the use of hand sanitizer, while 90% state that the school has been divided into zones. 80% indicate that there has been rules about distance. According to just over half of the teachers, the students have been divided into smaller groups, while according to the other half, this has not been the case. The same distribution is found in the teachers 'answers to whether there have been one or more significant changes in the students' school day (eg changes in length, context, content, use of media, etc.) compared to before coronavirus.

03.02 Handling rules and restrictions at school

As stated in the previous section, according to a large part of the teachers there have been rules and restrictions at school. In this section, we examine how students have handled these rules and restrictions and whether they according to the teachers have found it difficult to comply.

03.02.31 *The students have adhered to the permitted zones/areas without any problems*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	16	4.57	4.57
To a low extent	45	12.86	17.43
To a moderate extent	165	47.14	64.57
To a large extent	84	24.00	88.57
Not answered	40	11.43	100.00
Total:	350	100	

Summarized statistics

Observations	310
Average	3.02
Std. deviation	.789989831

03.02.32 *The students have had difficulties complying with the hygiene rules.*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	33	9.43	9.43
To a low extent	100	28.57	38.00
To a moderate extent	158	45.14	83.14
To a large extent	42	12.00	95.14
Not answered	17	4.86	100.00
Total:	350	100	

Summarized statistics

Observations	333
Average	2.63
Std. deviation	.828385398

03.02.33 *The students understand, why the rules are important.*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	5	1.43	1.43
To a low extent	36	10.29	11.71
To a moderate extent	196	56.00	67.71
To a large extent	104	29.71	97.43
Not answered	9	2.57	100.00
Total:	350	100	

Summarized statistics

Observations	341
Average	3.17
Std. deviation	.664509765

As can be seen from the tables in this section, more than 70% of the teachers indicate that the students have adhered to the permitted zones/areas without problems, while 18% indicate the opposite. Slightly fewer of the teachers, 57%, indicate that they have had no problems complying with the hygiene rules. A very large part of the teachers, 86%, indicate that the students understand why the rules are important.

03.03 Learning environment

In this section 04.06 on the learning environment, we ask the teachers about how much outdoor teaching they have had, and about their use of computers/chromebooks/tablets. Furthermore, we ask to the balance between individual student work and group work

03.03.34 *We have been more outdoors in classes than before coronavirus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	62	17.71	17.71
To a low extent	108	30.86	48.57
To a moderate extent	127	36.29	84.86
To a large extent	29	8.29	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	2.38
Std. deviation	.892002112

03.03.35 *We have been on more trips away from school than before coronavirus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	132	37.71	37.71
To a low extent	134	38.29	76.00
To a moderate extent	53	15.14	91.14
To a large extent	7	2.00	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	1.80
Std. deviation	.784542742

03.03.36 *We use computers/chromebook/tablet in classes more often than before corona-virus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	127	36.29	36.29
To a low extent	113	32.29	68.57
To a moderate extent	64	18.29	86.86
To a large extent	22	6.29	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	1.94
Std. deviation	.924691446

03.03.37 *The students work more individually in classes than before the coronavirus*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	69	19.71	19.71
To a low extent	102	29.14	48.86
To a moderate extent	112	32.00	80.86
To a large extent	43	12.29	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	2.40
Std. deviation	.963892729

03.03.38 *The students use more time in small groups than before the coronavirus*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	88	25.14	25.14
To a low extent	114	32.57	57.71
To a moderate extent	99	28.29	86.00
To a large extent	25	7.14	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	2.19
Std. deviation	.920845581

03.03.39 *We do more online teaching than before coronavirus*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	181	51.71	51.71
To a low extent	99	28.29	80.00
To a moderate extent	36	10.29	90.29
To a large extent	10	2.86	93.14
Not answered	24	6.86	100.00
Total:	350	100	

Summarized statistics

Observations	326
Average	1.62
Std. deviation	.802056112

45% of the teachers indicate that they have not been more outdoors than usual. Only 17% report having been on more trips away from school than usual. Regarding the use of computers/chromebooks/tablets, a quarter of the teachers report that they have used them more than before coronavirus. According to a little less than 45% of the teachers, the students work more individually, while 36% estimate that they work more in small student groups.

03.04 Teaching activities

In section 03.04, we examine the use of teaching activities in the period after the reopening of the schools. We ask the teachers to assess the extent to which a number of teaching activities have been used in this period. They are asked a series of questions that relate to the weighting of student-centred and teacher-led activities, respectively. Furthermore, we examine students' experience of the frequency of six activities that are identified by Parker & Thomsen (2019) as compatible with playful learning environments.

03.04.40 *I present a topic or an assignment*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	5	1.43	1.43
To a low extent	7	2.00	3.43
To a moderate extent	77	22.00	25.43
To a large extent	178	50.86	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	3.60
Std. deviation	.636949978

03.04.41 *The students watch videos on a topic*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	47	13.43	13.43
To a low extent	83	23.71	37.14
To a moderate extent	100	28.57	65.71
To a large extent	37	10.57	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.48
Std. deviation	.93910804

03.04.42 *The students read about a topic in books/e-books/texts*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	33	9.43	9.43
To a low extent	31	8.86	18.29
To a moderate extent	131	37.43	55.71
To a large extent	72	20.57	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.91
Std. deviation	.93523182

03.04.43 *The students practice assignments on the computer/chromebook/tablet*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	31	8.86	8.86
To a low extent	56	16.00	24.86
To a moderate extent	123	35.14	60.00
To a large extent	57	16.29	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.77
Std. deviation	.915742992

03.04.44 *The students report on something they have learnt to me or other students*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	16	4.57	4.57
To a low extent	58	16.57	21.14
To a moderate extent	136	38.86	60.00
To a large extent	57	16.29	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.88
Std. deviation	.810924814

03.04.45 *The students create various products or things (for example figures, drawings, etc.) that can be exhibited, displayed or played with)*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	37	10.57	10.57
To a low extent	89	25.43	36.00
To a moderate extent	105	30.00	66.00
To a large extent	36	10.29	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.52
Std. deviation	.893989454

03.04.46 *The students give presentations in class*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	36	10.29	10.29
To a low extent	82	23.43	33.71
To a moderate extent	104	29.71	63.43
To a large extent	45	12.86	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.59
Std. deviation	.922773428

03.04.47 *The students work with projects*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	54	15.43	15.43
To a low extent	71	20.29	35.71
To a moderate extent	123	35.14	70.86
To a large extent	19	5.43	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.40
Std. deviation	.888776827

03.04.48 *In class, we deal with a topic where several subjects (for example Danish or mathematics) work together*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	94	26.86	26.86
To a low extent	93	26.57	53.43
To a moderate extent	61	17.43	70.86
To a large extent	19	5.43	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.02
Std. deviation	.931702232

03.04.49 *In class, the students make decisions on the content of a topic individually or in groups*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	84	24.00	24.00
To a low extent	118	33.71	57.71
To a moderate extent	56	16.00	73.71
To a large extent	9	2.57	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	1.96
Std. deviation	.812555303

03.04.50 *In class, the students compete to solve most assignments on time*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	155	44.29	44.29
To a low extent	82	23.43	67.71
To a moderate extent	25	7.14	74.86
To a large extent	5	1.43	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	1.55
Std. deviation	.741030109

03.04.51 *The students learn through playing games*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	48	13.71	13.71
To a low extent	87	24.86	38.57
To a moderate extent	106	30.29	68.86
To a large extent	26	7.43	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.41
Std. deviation	.894178432

03.04.52 *The students learn while doing sports*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	64	18.29	18.29
To a low extent	113	32.29	50.57
To a moderate extent	76	21.71	72.29
To a large extent	14	4.00	76.29
Not answered	83	23.71	100.00
Total:	350	100	

Summarized statistics

Observations	267
Average	2.15
Std. deviation	.845170914

03.04.53 *I use examples to help the students understand what they have to learn*

	Frequency (N)	Percentage (%)	Cumulative (%)
To a low extent	7	2.00	2.00
To a moderate extent	72	20.57	22.57
To a large extent	185	52.86	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	3.67
Std. deviation	.523169808

03.04.54 *I show the students how what they are about to learn relates to something they have learnt before*

	Frequency (N)	Percentence (%)	Cumulative (%)
To a low extent	9	2.57	2.57
To a moderate extent	96	27.43	30.00
To a large extent	159	45.43	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	3.57
Std. deviation	.561003742

03.04.55 *I show the students how things they learn can be used in everyday life*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	3	0.86	0.86
To a low extent	18	5.14	6.00
To a moderate extent	147	42.00	48.00
To a large extent	96	27.43	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	3.27
Std. deviation	.635943765

03.04.56 *I give the students an assignment where they have to investigate a topic themselves*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	32	9.14	9.14
To a low extent	69	19.71	28.86
To a moderate extent	132	37.71	66.57
To a large extent	31	8.86	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	2.61
Std. deviation	.846803224

03.04.57 *I give the students a task for which they have to find solutions themselves*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	24	6.86	6.86
To a low extent	43	12.29	19.14
To a moderate extent	152	43.43	62.57
To a large extent	45	12.86	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	2.83
Std. deviation	.81801217

03.04.58 *The students are asked to search for information on a topic themselves (for example online or in books, at the library)*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	54	15.43	15.43
To a low extent	58	16.57	32.00
To a moderate extent	116	33.14	65.14
To a large extent	36	10.29	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	2.51
Std. deviation	.967110959

03.04.59 *The students are faced with problems they have to solve themselves using what they have learnt*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	21	6.00	6.00
To a low extent	49	14.00	20.00
To a moderate extent	145	41.43	61.43
To a large extent	49	14.00	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	2.84
Std. deviation	.816461301

03.04.60 *I show the students how things they have learnt can be used outside of school*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	15	4.29	4.29
To a low extent	71	20.29	24.57
To a moderate extent	144	41.14	65.71
To a large extent	34	9.71	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	2.75
Std. deviation	.750148812

03.04.61 *In classes, I use examples that the students understand*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	3	0.86	0.86
To a low extent	8	2.29	3.14
To a moderate extent	96	27.43	30.57
To a large extent	157	44.86	75.43
Not answered	86	24.57	100.00
Total:	350	100	

Summarized statistics

Observations	264
Average	3.54
Std. deviation	.615211691

03.05 Teaching quality

After the questions about the teaching activities, we ask the teachers to what extent they experience that the classes have supported the students' academic and social development as well as Bildung. We also ask them about to what extent they have been able at fulfilling five key characteristics of playful learning, that is whether they have experienced the possibility to support the students' enthusiasm for learning and their social involvement and interaction as well as to have the students experiment and to what extent they have been able to make classes meaningful for the students. In addition, we ask them whether the period has supported their professional satisfaction of the teachers.

03.05.62 *To what extent have classes supported the students' academic development?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	2	0.57	0.57
To a low extent	10	2.86	3.43
To a moderate extent	149	42.57	46.00
To a large extent	171	48.86	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	3.47
Std. deviation	.588808065

03.05.63 *To what extent have classes supported the students' social development?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	5	1.43	1.43
To a low extent	35	10.00	11.43
To a moderate extent	187	53.43	64.86
To a large extent	105	30.00	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	3.18
Std. deviation	.67128552

03.05.64 *To what extent have classes supported the students' Bildung?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	3	0.86	0.86
To a low extent	25	7.14	8.00
To a moderate extent	177	50.57	58.57
To a large extent	127	36.29	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	3.29
Std. deviation	.641563809

03.05.65 *To what extent have classes supported the students' enthusiasm for learning (they enjoy activities and experience the rush of surprise, insight or success)?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	5	1.43	1.43
To a low extent	57	16.29	17.71
To a moderate extent	209	59.71	77.43
To a large extent	61	17.43	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	2.98
Std. deviation	.645438482

03.05.66 *To what extent have classes supported the students' social involvement and interaction (exchange of ideas, thoughts and development of common understanding)*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	3	0.86	0.86
To a low extent	47	13.43	14.29
To a moderate extent	202	57.71	72.00
To a large extent	80	22.86	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	3.08
Std. deviation	.64288863

03.05.67 *To what extent have classes supported the possibility for the students to work experimentally in relation to their learning (testing possibilities, discovering questions, etc.)*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	13	3.71	3.71
To a low extent	103	29.43	33.14
To a moderate extent	176	50.29	83.43
To a large extent	40	11.43	94.86
Not answered	18	5.14	100.00
Total:	350	100	

Summarized statistics

Observations	332
Average	2.73
Std. deviation	.719057721

03.05.68 *To what extent have classes supported the possibility to make the activities meaningful for the students (they link experiences to something already known)*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	4	1.14	1.14
To a low extent	23	6.57	7.71
To a moderate extent	167	47.71	55.43
To a large extent	68	19.43	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	3.14
Std. deviation	.624453199

03.05.69 *To what extent have classes supported your joy of teaching?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	4	1.14	1.14
To a low extent	29	8.29	9.43
To a moderate extent	143	40.86	50.29
To a large extent	86	24.57	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	3.19
Std. deviation	.683230656

03.05.70 *To what extent have classes supported your collaboration with colleagues?*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	8	2.29	2.29
To a low extent	53	15.14	17.43
To a moderate extent	137	39.14	56.57
To a large extent	64	18.29	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	2.98
Std. deviation	.755324852

03.05.71 *To what extent have classes supported your professional pride?*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	7	2.00	2.00
To a low extent	30	8.57	10.57
To a moderate extent	146	41.71	52.29
To a large extent	79	22.57	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	3.13
Std. deviation	.712032403

03.05.72 *To what extent have classes supported the possibility of keeping the children in flow in relation to their focus and commitment to activities*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	2	0.57	0.57
To a low extent	26	7.43	8.00
To a moderate extent	167	47.71	55.71
To a large extent	67	19.14	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	3.14
Std. deviation	.605766698

More than 90% of the teachers think that classes have supported the students' academic development, while slightly fewer, just over 80%, indicate that they have supported the students' social development and Bildung. More than 80% estimate that classes have supported the students' enthusiasm for learning as well as social involvement and interaction. Just over 60% state that the teaching has supported the possibility of having the students experimenting during their learning processes and of making the teaching meaningful for the students. When it comes to teachers' experiences of their own situation, almost 65% experience indicate that teaching has supported their joy of teaching. 10% are negative on this statement. A similar distribution is found on the question of whether the period has supported their professional pride.

03.06 Ressourced used during planning of courses

In the final section of the teacher survey, we examine what resources in the form of courses, materials, social groups and collegial sparring the teachers have used during the planning of teaching in the period of reopening schools.

03.06.73 *Courses (physical or online) provided by my school?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	187	53.43	53.43
To a low extent	40	11.43	64.86
To a moderate extent	28	8.00	72.86
To a large extent	7	2.00	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	1.45
Std. deviation	.789664821

03.06.74 *Access to articles, books or material online?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	27	7.71	7.71
To a low extent	47	13.43	21.14
To a moderate extent	109	31.14	52.29
To a large extent	79	22.57	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	2.92
Std. deviation	.943119207

03.06.75 *Inspiration from professional groups on social media?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	61	17.43	17.43
To a low extent	67	19.14	36.57
To a moderate extent	92	26.29	62.86
To a large extent	42	12.00	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	2.44
Std. deviation	1.01807967

03.06.76 *Sparring or collaboration with colleagues at school?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	13	3.71	3.71
To a low extent	35	10.00	13.71
To a moderate extent	117	33.43	47.14
To a large extent	97	27.71	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	3.14
Std. deviation	.828268367

03.06.77 *Access to observation of colleagues' courses?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	152	43.43	43.43
To a low extent	61	17.43	60.86
To a moderate extent	43	12.29	73.14
To a large extent	6	1.71	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	1.63
Std. deviation	.837547474

03.06.78 *More preparation time (due to eg. canceled meetings or reallocation of working hours)?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	112	32.00	32.00
To a low extent	58	16.57	48.57
To a moderate extent	73	20.86	69.43
To a large extent	19	5.43	74.86
Not answered	88	25.14	100.00
Total:	350	100	

Summarized statistics

Observations	262
Average	2.00
Std. deviation	.999992688

03.06.79 *Less working pressure (due to eg. canceled meetings or reallocation of working hours.)?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	98	28.00	28.00
To a low extent	69	19.71	47.71
To a moderate extent	60	17.14	64.86
To a large extent	21	6.00	70.86
Not answered	102	29.14	100.00
Total:	350	100	

Summarized statistics

Observations	248
Average	2.02
Std. deviation	.989694845

03.06.80 *Access to teaching resources I do not normally have access to?*

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	136	38.86	38.86
To a low extent	64	18.29	57.14
To a moderate extent	43	12.29	69.43
To a large extent	5	1.43	70.86
Not answered	102	29.14	100.00
Total:	350	100	

Summarized statistics

Observations	248
Average	1.67
Std. deviation	.832589673

03.06.81 *More staff (eg. increased use of temporary staff)?*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	137	39.14	39.14
To a low extent	66	18.86	58.00
To a moderate extent	35	10.00	68.00
To a large extent	10	2.86	70.86
Not answered	102	29.14	100.00
Total:	350	100	

Summarized statistics

Observations	248
Average	1.67
Std. deviation	.86517672

03.06.82 *Great goodwill and extraordinary commitment from my students?*

	Frequency (N)	Percentage (%)	Cumulative (%)
Not at all	58	16.57	16.57
To a low extent	99	28.29	44.86
To a moderate extent	79	22.57	67.43
To a large extent	12	3.43	70.86
Not answered	102	29.14	100.00
Total:	350	100	

Summarized statistics

Observations	248
Average	2.18
Std. deviation	.84612639

03.06.83

Sparring with a leader at school?

	Frequency (N)	Percentence (%)	Cumulative (%)
Not at all	84	24.00	24.00
To a low extent	69	19.71	43.71
To a moderate extent	76	21.71	65.43
To a large extent	19	5.43	70.86
Not answered	102	29.14	100.00
Total:	350	100	

Summarized statistics

Observations	248
Average	2.12
Std. deviation	.969934611

10% of the teachers have used resources in the form of courses during the planning of classes, while more than 50% have used material in the form of books or articles. Just under 40% and just over 50%, respectively, have found inspiration in social groups online or among colleagues. About a quarter have had more time for planning due to less working pressure and canceled meetings or more teacher resources. 25% feel have experienced an extraordinary commitment among the students.



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