

## EARLY Survey

### Descriptive Analysis for Latvia

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## **Information about lockdown**

Latvia implemented a periodic lockdown (COVID-19) in education in March 2020, which included the closure of all educational institutions, including preschools, schools, universities. This closure was part of a wider national lockdown aimed at reducing the spread of the virus. During the lockdown, schools and universities transitioned to remote learning, with teachers and students communicating through online platforms and other digital tools. Preschool teachers tried to ensure remote learning materials and guidance for parents to support their children's learning and development at home. The Ministry of Education and Science provided some guidelines for remote teaching, and schools were expected to ensure that all students had access to the necessary technology and resources for remote learning.

There was no general lockdown implemented during the 2020/2021 academic year. In September 2020, schools in Latvia reopened for in-person learning with safety measures in place, such as mask-wearing and social distancing. In preschools safety measures such as smaller group sizes, increased sanitation, and mandatory mask-wearing for staff were implemented. However, as the number of COVID-19 cases increased in early 2021, the government announced a lockdown again in January, which included the closure of all educational institutions. So remote learning resumed, and in-person learning did not resume until April 12, 2021.

Schools and preschools in Latvia are currently open for in-person learning but are taking safety measures such as testing for sickness cases and parents are encouraged to keep sick children at home to prevent the spread of COVID-19. The situation remains fluid, and the government has stated that they will continue to monitor the situation and make adjustments to the preschool system as if it will be necessary to protect public health.

## **Information about computational thinking and robotics in general education in Latvia**

Computational thinking, programming and robotics have become popular in general education in Latvia over the past years. The Latvian government has recognized the importance of technology and preparing students for the digital age, and has implemented various initiatives to promote computational thinking and robotics in general education program. Computational thinking is taught as a cross-curricular skill, integrated into various subjects such as mathematics, computer lesson, programming lesson, design and technology, robotics (high school). This approach allows students to develop problem-solving skills and logical reasoning abilities. In addition to general education, preschools in Latvia are also incorporating computational thinking and robotics education into their extracurricular activities. Many preschools have started to offer robotics classes and workshops to children, providing them with an opportunity to learn about coding, programming, and robotics in a fun and engaging way. These extracurricular interests education programs in robotics are designed to encourage children's curiosity and interest in technology from an early age, which can help to develop their computational thinking, problem-solving and critical thinking skills. Preschool robotics programs in Latvia typically use age-appropriate robotics kits and tools, such as Bee-Bots, LEGO WeDo, Code & Go Robot Mouse, ScratchJr and Photon robot, which are designed to introduce young children to the basics of programming and robotics. These programs often involve hands-on activities, games, and challenges, which make learning about robotics and programming more engaging and fun for children.

## Information about survey

In this working paper, we present the descriptive analysis of the survey sent out to Initial teacher education student, Teaching staff of children 0-7 years old and wider public on social media. It was an on-line survey designed by the EARLY team and translated into **Latvian**.

**Survey was distributed** mostly in University of Latvia by emailing it to pedagogy students of Faculty of Education, Psychology and Art, also information about survey was published in faculty project social media (links, QR codes, emails).

The **225** answers were collected between July and November 2022. The majority of participants are Initial teacher education student (112N) (Table 1) and Teaching staff of children 0-7 years old (71N).

## Results

### Demographic data

Table 1. Participants Profile

Variable		ni	fi(%)
Role	Parent / family member / carer of a child or children 0-7 years old	42	18,7%
	Teaching staff of children 0-7 years old	71	31,6%
	Support staff of children 0-7 years old		0
	Board or administration of centers for children 0-7 years old		0
	Initial teacher education student	112	49,8%
Country	Latvia	224	99,5%
	Norway	1	0,5%
Gender	Male	2	1
	Female	221	98,2%
	Transgender		
	Non-binary/non-conforming		
	Prefer not to respond	2	0,90%

As presented in Table 1, it can be inferred that a majority of the participants in the survey were female (221N), with a significant number being initial teacher education students (112N) or teaching staff who work with children aged 0-7 years old (71N).

Table 2. Parents/families/carers Profile

Variable		ni	fi(%)
Year/s of birth of children	2013	1	2,4%
	2014	4	9,5%
	2015	9	21,4%
	2016	12	28,6%
	2017	7	16,7%

	2018	3	7,1%
	2019	7	16,7%
	2020	5	121,9%
	2021	-	-

As shown in table 2, 40 *parent/carer of a child or family member of children 0-7 years old* have given answers about the age of the children. And as we can see that the largest number (21N) are children at aged 6-7 and 4 years.

**Table 3. Staff and Board Profile**

Variable		ni	fi(%)
age group	0-3	22	31%
	3-6	50	70,4%
	both		

As shown in table 3, most of respondents (N50) - staff work with children at age group 3-6 years.

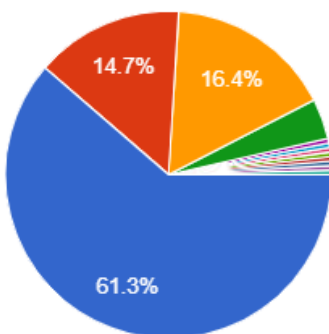
**Table 4. Initial Teacher Education students Profile**

Variable		ni	fi(%)
practicum experience	none	95	84,1%
	0-3 yo children	2	1,8%
	3-6 yo children	10	8,9%
	0-6 yo children	4	3,6%
	other ages	4	3,6%

As shown in table 4, Initial Teacher Education students mostly 84% (N95) hasn't practicum experience (*probably because respondents were 1 course students and at this study stage they do not have any practicum experience in study program*).

### 1. Remote learning during COVID-19 pandemic

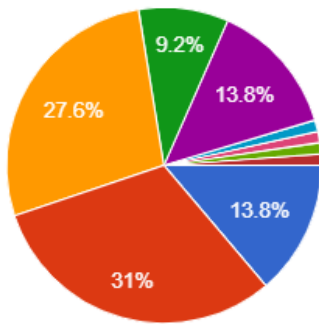
According to table 5, the respondents indicated that in the country in 2020-21 academic year there was either no general lockdown (138N) or there was only one or two general lockdowns during an emergency situation (differently in educational institutions, cities and municipalities).



*Table 5. Lockdown experiences in the country in 2020-21*

Variable	ni	fi%
There was no general lock-down	138	61,3%
There was one general lock-down	33	14,7%
There were two or more different periods of general lock-down	37	16,4%
There were only regional lock-downs	9	4%

Table 6 provides more information on the duration of the longest stay at home for children during the lockdown period. The responses from the respondents were quite varied, making it difficult to draw a definitive conclusion. However, we can conclude that the period that the children spent at home was not clearly even, with most respondents indicating that their children stayed at home for a period of two months or less.



*Table 6. Duration of longest stay at home for the children in 2020-21*

Variable	ni	fi%
There wasn't any long stay at home	12	13,8%
Around two weeks	27	31%
Around one month	24	27,6%
Around one to two months	8	9,2%
More than two months	12	13,8%

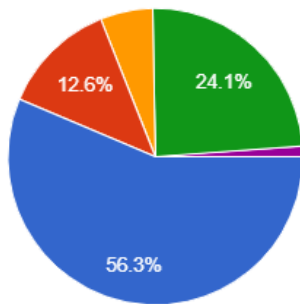
Based on the responses (table 7), it can be concluded that there was no clear consensus among the respondents regarding the presence of a national strategy for remote learning in Early Childhood Education during the 2020-21 academic year. While some respondents reported that there was general guidance or no strategy at all, others reported that there were specific orientations or requirements for remote learning. A significant portion of the respondents (26.4%) did not have enough information to answer the question. Therefore, it is difficult to draw a definitive conclusion about the status of a national strategy for remote learning in Early Childhood Education during that time period.

*Table 7. National strategy for remote learning in Early Childhood Education in 2020-21*

Variable	ni	fi%
We had remote learning but no national strategy for Early Childhood Education	19	21,8%

There was general guidance for remote learning in Early Childhood Education	24	27,6%
There was a national strategy with specific orientations for remote learning in Early Childhood Education	1	1,1%
Distance learning was not required	18	20,7%
I don't have the information to answer this question	23	26,4%

As presented in Table 8, respondents indicated that Early Childhood Education teachers maintained communication with families/carers but not directly with the children themselves (49N).



*Table 8. Contact between teachers and children during lockdowns*

Variable	ni	fi%
Early Childhood Education teachers kept in communication with families/carers but not with the children directly	49	56,3%
Early Childhood Education teachers had contact with the children directly but mostly in group	11	12,6%
Early Childhood Education teachers had contact with the children directly both in group and more individually	5	5,7%
I don't have the information to answer this question	21	24,1%

As shown in Table 9, the most popular tools for supporting communication during the lockdown period were Whatsapp (67N, 77%) and Zoom (29N, 33.3%). In addition, email (29N) and the local learning management system e-klase (2N) were also commonly used communication tools.

*Table 9. Platforms reported for supporting communication between ECE and families/carers*

Variable	ni	fi%
Whatsapp	67	77%
Zoom	29	33,3%
E-mail	25	28,7%
e-klase	12	14,7%
Uzdevumi.lv	11	12,6%
Soma.lv	10	11,5%
Microsoft TEAMS	8	9,2%
Eliis.eu	8	9,2%
Google Meet	4	4,6%
Facebook	3	3,4

Youtube	3	3,4
Skype	2	2,3%
Quizizz	1	1,1%
Kahoot!	1	1,1%
Moodle	1	1,1%
Google Classroom	1	1,1 %

As shown in table 10, the majority of respondents indicated that Early Childhood Education teachers sent suggestions for activities to be developed at home once per week (33N), with a smaller group indicating that they received suggestions more than once per week (16N).

*Table 10. Frequency of suggestions by ECE teachers of activities to be developed at home*

Variable	ni	fi%
Once per month there were suggestions	8	9,2%
Once per week there were suggestions	33	37,9%
More than once per week there were suggestions	16	18,4%
There were daily suggestions	1	1,2%
I don't know	26	29,9%
Other - please specify	3	3,6%

In table 11, where the answer options are evaluated as follows:

- 1 - did not matter / had no effect,
- 2 - was somewhat significant / had some influence,
- 3 - was of significant importance / had an impact,
- 4 - was very important / had a big impact,
- 5 - I do not have the information to answer this question.

- 54% of the respondents indicated that the lack of time from families/caregivers due to remote work was very important had significant importance and big impact.
- 23% of the respondents indicated that the lack of resources available at home for developing activities also was a significant factor.
- Again 23% of the respondents indicated that the suggested activities were too structured or formal for young children, which was somewhat significant and had some influence.
- 27,6% of the respondents indicated that families/caregivers were insecure about their knowledge of the topics of the activities, which was of significant importance and had an impact.
- 28,7% of the respondents indicated that families/caregivers were insecure about how to engage children in activities, which was of significant importance and had an impact.
- The opinion is divided on the impact of the lack of experience in using digital educational platforms among families/caregivers. 24% of the respondents who had no experience in using such platforms answered that it did not matter or had no effect, while an equally large percentage claimed that it was of significant importance and had an impact.
- 24% of the respondents indicated that the large number of suggestions being presented to families/carers was of significant importance and had an impact, while 21% answered that it did not matter or had no effect.
- 28,7% of the respondents answered that the activities not being aligned with children's interests either did not matter or had no effect, while the remaining 21,8 percentage found it somewhat significant or had some influence.

Table 11. Difficulties that impacted the experience for children regarding activities sent by teachers to be developed by families/carers

Variable	was not relevant / didn't have an impact		was somewhat relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have information to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
Lack of time from families/carers due to remote work	6	6,9 %	11	12, 6%	<b>26</b>	<b>29, 9%</b>	<b>21</b>	<b>24, 1%</b>	23	26, 4%
Lack of resources available at home for developing the activities	17	19, 5%	13	15, 9%	<b>29</b>	<b>33, 3%</b>	14	16, 1%	14	16, 1%
Activities that were suggested were too structured or too formal for young children	17	19, 5%	<b>20</b>	<b>23 %</b>	19	21, 8%	12	13, 8%	19	21, 8%
Families/carers were insecure about knowledge about the topics of the activities	15	17, 2%	19	21, 8%	<b>24</b>	<b>27, 6%</b>	10	11, 5%	19	21, 8%
Families/carers were insecure about how to engage children in activities	10	11, 5%	17	19, 5%	<b>25</b>	<b>28, 7%</b>	17	19, 5%	18	20, 7%
Families/carers had no experience in using digital educational platforms	<b>21</b>	<b>24, 1%</b>	15	17, 2%	<b>21</b>	<b>24, 1%</b>	12	13, 8%	19	21, 8%
There were too many suggestions being presented to families/carers	20	23 %	15	17, 2%	<b>21</b>	<b>24, 1%</b>	12	13, 8%	19	21, 8%
The activities were not aligned with children's interests	<b>25</b>	<b>28, 7%</b>	<b>19</b>	<b>21, 8%</b>	15	17, 2%	8	9,2 %	20	23 %
The learning to be developed with the activities was not evident	24	27, 6%	11	12, 6%	17	19, 5%	15	17, 2%	20	23 %
The activities were not challenging for the children	21	24, 1%	11	12, 6%	22	25, 3%	12	13, 8%	21	24, 1%
Other - please specify	<ol style="list-style-type: none"> <li>1. No difficulties were encountered as the tasks were enjoyable, and most of the children completed them willingly and even went beyond the requirements. They also wanted to share the results with the teachers.</li> <li>2. Lack of time and motivation to learn were challenges faced.</li> <li>3. Montessori activities were provided, but there was a shortage of learning resources at home.</li> <li>4. There were no specific instructions or activities for children in the middle age group.</li> <li>5. Various development-related work was done at home without any difficulties.</li> <li>6. It was not possible to do the work due to poor internet connectivity.</li> <li>7. No difficulties were encountered as it was a great time spent with family at home.</li> <li>8. No difficulties were encountered.</li> <li>9. The young age of the children could have made learning difficult.</li> <li>10. The family found it challenging to teach the children.</li> <li>11. No difficulties were encountered.</li> </ol> <p>Lack of space for the lesson was a difficulty.</p>									

As shown in table 12, most of the respondents (65.5%) indicated that they did not know the frequency of synchronous times with children that involved shared activities, which may be because they are initial teacher education student. Additionally, some respondents pointed out that there was no remote learning in preschool.

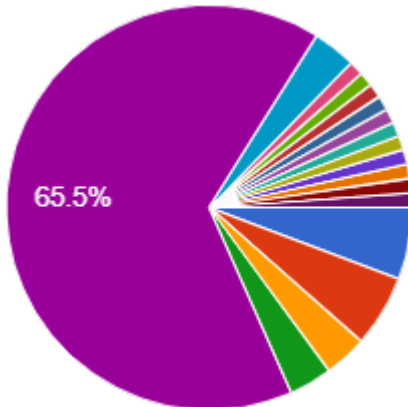


Table 12. Frequency of synchronous times with children that involved shared activities

Variable	ni	fi%
Once per month there were synchronous moments	5	5,7%
Once per week there were synchronous moments	5	5,7%
More than once per week there were synchronous moments	3	3,4%
There were daily synchronous moments	3	3,4%
I don't know	57	65,5%

As shown in table 13, where the answer options are evaluated as follows:

- 1 - did not matter / had no effect,
- 2 - was somewhat significant / had some influence,
- 3 - was of significant importance / had an impact,
- 4 - was very important / had a big impact,
- 5 - I do not have the information to answer this question.

Approximately half of the 87 respondents indicate that they do not know the answers to the questions, possibly because they are students.

Table 13. Difficulties that impacted the experience for children regarding synchronous times that involved shared activities

Variable	was not relevant / didn't have an impact		was somewhat relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have information to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
Lack of time from families/carers due to remote work to be present during the synchronous moments	15	17,2%	12	13,8%	9	10,3%	15	17,2%	6	41,43%
Families/carers lacked the technology to participate in synchronous moments	21	24,1%	10	11,5%	15	17,2%	13	14,9%	28	32,2%
Families/carers had no experience in using digital educational platforms	21	24,1%	10	11,5%	12	13,8%	16	18,4%	28	32,2%

Children were not used to interacting through technology (e.g. videoconferencing)	15	17, 2%	9	10, 3%	18	20, 7%	14	16, 1%	31	35, 6%
The synchronous moments were too long	21	24, 1%	10	11, 5%	14	16, 1%	6	6,9	36	41, 4%
The synchronous moments were not focused on interacting with children one-on-one	21	24, 1%	10	11, 5%	14	16, 1%	6	6,9	36	41, 4%
The activities during the synchronous moments were not engaging for the children	19	21, 8%	8	9,2 %	15	17, 2%	6	6,9 %	39	44, 8%
Children were shy during the interactions	18	20, 7%	4	4,6 %	17	19, 5%	13	14, 9%	35	40, 2%
Other - please specify	<ol style="list-style-type: none"> <li>1. The preschool children were too young to learn how to use the computer on their own, hence there were no lessons on this topic.</li> <li>2. The previous answer already indicated that there was no such teaching, so this response is redundant and should not be counted.</li> <li>3. There was no synchronous learning.</li> <li>4. It is not possible to evaluate this, as there was no synchronous teaching in the preschool.</li> <li>5. This response is incomplete and does not provide information on any specific difficulties.</li> <li>6. This response is also incomplete and does not provide information on any specific difficulties.</li> <li>7. There were no difficulties as the children learned new skills while playing at home, and educators did not conduct any remote training. However, they did visit the child's place once to deliver a surprise gift.</li> <li>8. This response is vague and does not provide information on any specific difficulties.</li> <li>9. The young age of the children could have been a difficulty in their learning.</li> <li>10. No difficulties were experienced.</li> </ol>									

## 2. Learning from the remote experience

Based on the given responses shown in table 14, 52 out of 225 respondents (23.1%) have used websites with interactive games for preschool education during the suspension of educational institutions. 8 respondents (3.6%) have used ebooks about COVID-19 and related topics, while 41 respondents (18.2%) have used websites or ebooks with suggested activities for families or carers to do at home with children. 22 respondents (9.8%) have used interactive storytelling websites.

Table 14. Resources for ECE created during the lockdown

Variable	ni	fi%
Websites with interactive games	52	23,1%
Ebooks about COVID-19 and related topics	8	3,6%
Websites or ebooks with activities suggested for families/carers to do at home with children	41	18,2%
Interactive storytelling websites	22	9,8%
Other - please specify		
I don't know	132	58,7%

Based on the responses given and shown in table 15 below, 24 out of 225 respondents (10.7%) reported that there is no provision for children in isolation. 71 respondents (31.6%) stated that teachers stay in contact with families or caregivers, while 111 respondents (49.3%) reported that teachers send activities to be developed at home. Only 2 respondents (0.9%) reported that synchronous moments are arranged between the teacher and the stay-at-home children, and 4 respondents (1.8%) reported that synchronous moments are arranged between the group of children, with the teacher and the stay-at-home children. Additionally, 29 respondents (12.9%) reported that there are national resources such as websites and ebooks for families to explore with children during isolation. Finally, 52 respondents (23%) reported that they don't have enough information to answer the question.

*Table 15. Current provision for children in isolation*

<b>Variable</b>	<b>ni</b>	<b>fi%</b>
There is no provision	24	10,7%
Teacher stay in contact with families/carers	71	31,6%
Teacher send activities to be developed at home	111	49,3%
Synchronous moments are arranged between the teacher and the stay at home children	2	0,9%
Synchronous moments are arranged between the group of children, with the teacher, and the stay at home children	4	1,8%
There are national resources (websites, ebooks, etc) for families to explore with children during isolation	29	12,9%
Other - please specify		
I don't have the information to answer this question	52	23%

### **Content analysis of question**

#### *What do you think was learned from the experience about children and their learning?*

From the responses given to the question "What do you think you learned from this experience about children and their learning?", it is clear that the impact of home learning on children during the pandemic has been varied. Some responses suggest that parents were not equipped with the skills or knowledge to support their children's learning at home, while others suggest that the learning process was hindered due to lack of motivation and poor concentration in the home environment. On the other hand, some responses suggest that the experience of home learning has led to increased independence in children, and the ability to use digital tools to support their learning. Additionally, it is evident that the involvement of parents in the learning process is important, as it can greatly impact the child's motivation and progress.

It can be concluded that the experience of home learning during the pandemic has highlighted the need for effective collaboration between educators, parents, and children. It has also emphasized the importance of creating a supportive learning environment that can facilitate the child's learning process. It has made it clear that children learn best through face-to-face interactions with teachers and other children, and this experience should be made less traumatic for them in case of remote learning situations.

### **open-ended responses from all respondents**

When preschool children are in self-isolation, parents should ensure the learning process. Any educator and parent must be professionally knowledgeable in the field of technology, otherwise the

child may remain uneducated, no one will even be able to help him.  
The parent did a lot, not the child.  
Children learn only when they are in a pre-school educational institution  
Parents will never be teachers. For a child, the teacher is an authority that cannot be contradicted.  
Nothing was learned, this situation only made things worse  
A lot of parental support and parental understanding of the learning process is necessary.  
It is the parent who learns the most, not the child.  
No information  
Instead of children, parents did the work  
It is best for children to learn face-to-face under the guidance of an experienced pedagogue, but hardly the higher-ups in the education sector fully understand this. And even being in person, this experience should be made less traumatic for children  
More work for parents  
Parents do not take kindergarten seriously  
It was my child who spent very little time in isolation, except for the spring of 2020. The rest of the time attended PII. But I think that our PII educators definitely lack the digital skills to create remote lessons, and there were none at all. The only means of communication - vacaps. My own child didn't have and doesn't have any learning problems, and C19 didn't seem to have much of an effect either.  
Patience  
Parents, wanting good, do chores for their children. Children gain nothing.  
Environment matters, as well as learning initiation rites/modes, which are difficult to provide with full-time remote work-at-home parents.  
the fact that the educational institution cannot be relied upon, the parent has to undertake the education himself  
There was no chance to get anything. I had contact with the parents of the children and the feedback consisted of the work done.  
the state's e-resources have been studied  
It's hard to answer  
Independence  
No experience  
We didn't have one  
Ability to use digital tools.  
Practical lessons  
Getting to know the children themselves more, what the child knows and what he doesn't know, he could devote time to the children  
I do not know  
No information  
On-site learning is more efficient.  
Yes  
No information  
Restraint  
At home, many do not want to do chores, there is poor motivation. Lack of feedback from parents.  
Children prefer to learn face-to-face.  
In my opinion, the children were only the losers, because it is not the house that does the assigned work  
Children like interactive activities and are able to hold more attention.  
I can't answer  
Understanding the child's abilities.  
Cooperation with the parent  
Don't want to study  
By working at home, the child also learns the relevant topic.  
Children became more independent  
Become more independent  
Nothing  
Although the teachers assigned homework, they were not completed, the homeschooled children were not fully prepared for school.  
Children learn to work remotely, learned how to use zoom and other programs they used  
I think it was nothing because it was not possible to observe the learning process  
Classroom lessons are more effective  
Children's knowledge and skills were learned, how actively children work together with their parents  
I do not know  
Experience once again confirmed that parents do not work at home with their children. A profound lack of knowledge.

Everything depends on the willingness of the parents to get involved in the schooling process  
 Parental involvement, how interested parents were in working with children.  
 Hard to say.  
 Another way of learning  
 We are not dealing with this  
 I did not understand the question.  
 Their independence and willingness to engage  
 No comment  
 nothing  
 Parents could verify the knowledge their children have already acquired and those that still need to be improved. Time for a parent with children.  
 Independence  
 no thoughts  
 The children began to get used to the fact that there are tasks to be completed at home, which are then delivered to the teacher  
 Parents appreciated the teacher's work much more, were more involved in their children's education. Both educators and children's parents were able to quickly and successfully use digital skills.  
 Parents need to be more involved, it is difficult for children to keep their attention for a long time if the work is done through a screen and in the home environment.  
 I do not know  
 The ability to concentrate, its persistence and my interest in technology  
 The child was interested in studying the information and completing the assigned tasks.  
 It was a difficult period, it was difficult for children to understand learning  
 No answer  
 With parents  
 The older child finished the 9th grade with good grades but poor knowledge.  
 Are not.  
 That children learn the subject much better in person!  
 basic knowledge in preschool  
 Nothing  
 Study at home independently  
 children in preschool need to work face-to-face with the teacher and other children, the child does not perceive home as an educational institution  
 nothing much in preschool  
 Unfortunately, no  
 Parents spend very little time with their children and many parents did not use the resources given to them.  
 Children have no motivation to learn  
 If there is an outbreak of covid19 in the country, it is better for the child to stay at home.  
 Children, at preschool age, need to gain their experience and knowledge in person so that an adult can provide their support.  
 No answer  
 Parents spent more time with their children, learning at home is not possible because parents also worked remotely.  
 There are children who are able to do work independently, there are children who find it difficult  
 independence  
 Nothing  
 It was clearly visible which children completed these tasks at home and there was feedback, but there were also those where you could see that nothing was done at home  
 that shakes better  
 They have a hard time staying focused and work better together in groups  
 Children practically do not study at home  
 Children's computer skills  
 No answer  
 nothing  
 not all parents got involved  
 That it is possible to gain knowledge remotely.  
 Numbers.  
 Parents understood how difficult it is to bully children  
 Children do not want to work in the house. He has a phone.  
 Distance learning was a challenge  
 I can't answer  
 Repetition

At home, it is more difficult for children to concentrate on completing tasks, and parents, due to remote work, lacked time to interest children in completing tasks.

Activities mostly take place in the kindergarten, as at home due to the busyness of the parents difficult to answer

if parents helped then everything happened

Children's cooperation with grandparents

Cooperation

If the parents were interested in working with the child, then everything happened

I work with the child as I see fit

In order for children to focus on their studies, they need to be active in person.

Lack of composure and concentration.

Cooperation

Children did not have self-directed learning, as homeschoolers did.

Conduct interesting hours

I won't be able to answer.

Children do not focus on learning in the home environment.

children find it difficult to learn remotely, this is not teaching.

I can't understand

I can't know

About digital practice

So much can be done at home, it just takes a lot of time.

not much for children

How to spend quality time with a child

Nothing

A lot of problems with speaking paradise

A new experience for the whole family

How important direct contact and support is

Experience

I can't answer

Everyone did not get involved in the work they were sent to do/do at home. Those who wanted, also got involved. Children gain, spend more time with parents.

Everything you need

Nothing

For preschool children, learning in preschool is more effective

The skill of waiting before speaking was learned so as not to create simultaneous conversations.

Low level of communication from parents.

If the parents do not work with the children during this period, then nothing was done. Because it is very difficult to keep a child's attention on the screen. It is stipulated in the law that a child may spend no more than 15 minutes on phones and computers. day

It is difficult for children psychologically

independence

Cooperation between the child, teacher and parents.

Being with family

There is no comment.

Nothing new that I didn't know

Difficulty concentrating

Little experience, because we work almost continuously.

There was no experience.

Children were happy to participate in distance learning

In order to achieve some results, parents should also devote time to the child

nothing.

The need to meet in kindergarten

Nothing

Although there was no such experience, I believe that it was an opportunity for families to spend more time together, for parents to pay more attention to their children's studies.

Children do not need the presence of parents or teachers to motivate them to pay more attention to the learning process.

Children can also learn remotely if teachers and parents are involved.

How face-to-face classes are very important for children

Parents are co-responsible for their children's education

Staying with parents

Learning new topics by yourself. Responsibility

Foot lessons are more productive.  
 Májas studies less  
 Families used Internet sites more to interact with their children.  
 In my opinion, children lacked the desire to learn in distance learning.  
 Preschool children should plan their studies through games  
 If necessary, parents, relatives can find free time to work with the child.  
 I don't know because I don't work  
 parents do not encourage the child to study at home.  
 That children are able to learn even remotely if they are given the necessary support in their studies.  
 They do not know how to study independently  
 Children quickly adapt to new situations.  
 Learning through play  
 Children are able to learn remotely.  
 Experience that you can have children at a distance, but it is much more difficult.  
 Independence  
 Must work in person  
 lack of digital skills  
 There were very few children who did anything at home with their parents because the parents were busy with their own affairs  
 I do not know  
 Parents do not have time to work with their children at home (most of them), the teacher's work (sending materials) is not appreciated.  
 Children began to learn worse  
 I don't have that kind of experience  
 Distance learning is difficult for children  
 It all depends on whether parents are ready to cooperate with PII  
 Learned their skills  
 to become more self-sufficient  
 more interactive ways to learn (but it does not replace socialization)  
 as much as the parents got involved  
 Certainly studying in person is much better than studying at home.  
 Preschool children prefer to study face-to-face  
 The child was not quarantined b/d, no work was given to him during his illness  
 I won't be able to answer  
 Children need socialization, face-to-face meetings  
 How do you give children the best to develop?  
 No information  
 I can't say  
 How important socialization is for children!  
 That hard for children  
 Cooperation with parents  
 The fact that children can also work successfully in the family circle, if the family is interested in the child's development  
 innovations  
 No opinion  
 How children should learn in person  
 it is not normal to study remotely  
 Patience and adaptation to the new situation.

As shown in table 16, out of 225 participants who were asked the question "Do you think that the experience gained during distance learning in preschool education could be useful in the following situations?" and were given the following answer options:

- Had no importance/had no impact
- Had some importance/had some impact
- Had a significant impact/had an impact
- Had a very significant impact/had a large impact
- I have no information to answer this question

approximately half believe that the remote learning process can have a significant impact/had an impact or very significant impact/had a large impact in cases where children have a long stay in a

hospital, children live in remote areas, children whose families/carers travel frequently, for children with chronic health problems or children with special needs.

Table 16. Situations for which the experience gained with remote teaching in Early Childhood Education could be useful

Variable	was not relevant / didn't have an impact		was somewhat relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have information to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
Children who have a long stay in a hospital	24	10,7%	23	10,2	40	17,8	68	30,2	70	31,1
Children who live in remote areas	19	8,4%	16	7,1%	60	26,7%	64	28,4%	66	29,3%
Children whose families/carers travel frequently	25	11,1%	27	12%	47	20,9%	62	27,6%	64	28,4%
Children with chronic health problems	13	5,8%	21	9,3%	49	21,8%	76	33,8%	66	29%
Children with special needs	20	8,9%	22	9,8%	44	19,6%	68	30,2%	71	31,6%
Other - Please specify	<p>There were no difficulties, the tasks were really nice, and most of the children willingly completed them, sometimes even more than required, and also wanted to show the results to the teachers.</p> <p>Lack of time, motivation to learn</p> <p>Mobtessori works were offered, for which there was a lack of learning resources at home</p> <p>Since the child is in the middle age group, there were no specific instructions and activities. We did various development-related work at home.</p> <p>was not</p> <p>No very good internet</p> <p>There were no difficulties, it was a great time spent with the family at home</p> <p>There were no difficulties.</p> <p>Too young age</p> <p>It was difficult for the family to teach the children.</p> <p>there were none</p> <p>Lack of space for the lesson</p>									

### 3. Views on distance learning for professional/personal development

As shown in table 17, the majority 182 respondents out of 225 have participated in the distance learning process.

Table 17. Experience with distance learning in the past 3 years

Variable	ni	fi%
I haven't had the experience.	43	19,1!
Just once	23	10,2%
Two to five times	28	12,4%
More than five	131	58,2%

As shown in table 18, mostly respondents in all these questions gave a positive response, indicating that they feel comfortable participating in distance training (44,4%), believe they can learn through distance education (52%), are enthusiastic about participating in distance education as part of their professional development (46,7%), and think that it is helpful to have professional development as distance education (48,8%). Their positive attitudes towards distance education suggest that they are open to the idea of remote learning and are motivated to develop their skills and knowledge through this format.

Table 18. Perspectives about distance learning

Variable	was not relevant / didn't have an impact		was somewh at relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have informati on to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
I feel comfortable participating in distance training.	17	7,6 %	33	14,7 %	49	21,8 %	100	44,4 %	26	11,6 %
I believe I can learn through distance education.	13	5,8 %	25	11,1 %	48	21,3 %	117	52 %	22	9,8 %
I am enthusiastic about participating in distance education as part of my professional development.	20	8,9 %	29	12,9 %	50	22,2 %	105	46,7 %	21	9,3 %
I think that it is helpful to have professional development as distance education.	14	6,2 %	25	11,1 %	56	24,9 %	109	48,4 %	21	9,3 %

*What do you feel would be necessary to make distance education for your own learning a positive experience?*

#### Content analysis of the question

The diverse range of opinions and experiences shared by the respondents about what is necessary to make distance education for their own learning a positive experience. Many respondents emphasized the importance of having professional instructors who are knowledgeable and skilled in

delivering distance education. Others mentioned the need for good digital technology provision, including a stable internet connection, and the availability of diverse and relevant learning materials. Some respondents noted that they already had a positive experience with distance learning, while others expressed skepticism or outright opposition to it. It is clear that there is no one-size-fits-all solution when it comes to distance education, and that the key to success lies in tailoring the learning experience to the needs and preferences of individual learners.

### **open-ended responses from all respondents**

Diverse learning materials  
There would be no other opportunity for study or work.  
No comment.  
Professional instructors  
More material bases.  
Do not create distance learning  
Good resources  
Have a positive experience. Much more convenient than in person!  
Good digital technology provision  
Good internet connection, possibility to study at your own time.  
More group work, giving feedback. Checking that a person has really studied.  
It is already provided  
practice and training  
It's my everyday life, I'm used to it  
Support from parents  
Learning interactive methods during distance lectures  
There is a difference between the experience of a preschooler and an adult  
well-built course structure, convenient app and quality content  
A good computer, a comfortable environment and a way to move between studies  
relevant computer equipment, prepared, available materials from the lecturer  
I have a positive attitude towards distance learning  
Already provided.  
No answer  
Passover remote countries  
Available materials - immediately.  
Motivation  
Good internet and responsive instructors using team  
Group work  
Home environment  
Patience and ability to learn.  
If it will be a positive experience  
Good mood of the teacher and in student discussions.  
The best attitude towards students, not so many demands from students.  
Practical operation.  
Complete information on available learning resources.  
In my opinion, if the teacher is friendly, then all the studies are also good  
Silence from the rest of the family  
I can't answer  
Feedback, consultations in all areas of study  
Positive teachers  
There is already a positive experience  
Feedback.  
I already have a positive experience studying remotely during the pandemic  
Greater motivation  
Discussions  
Involvement of students, asking questions, brain games to test knowledge  
The teacher should work more one-on-one with the student  
I think it is necessary to reduce the length of the lessons and talk less about useless things  
Educators' skills to work with technology  
It will depend on the person, if a person wants to learn something new, it doesn't matter what kind of learning takes place.  
Attitude of teachers

Lots of new information  
Nothing, if you can't provide quality lessons in person, then you have to reduce the fee as much as you can pay for nothing.  
Examples, practical work  
Internet availability so that it is continuous. Team better security, too often there are problems with this program.  
Interesting, engaging.  
Already gave only the most positive  
A positive teacher  
The lecture material is interestingly presented.  
I have a positive experience  
White of colleagues  
Knowledgeable instructors. An important method of presenting information.  
Continue as before  
good computer literacy  
I am satisfied with everything as it was.  
Feedback must be provided so that it is not just a mark, but also an explanation of what needs to be worked on. My opinion as a student.  
So that the Internet connection is quite stable and there are no technical interruptions or delays during the lesson.  
Distance learning does not give the opportunity to communicate and discuss, because the house is just me and the computer  
There is already a positive experience  
It already provides a positive experience, as it was possible to participate in lectures in any conditions. This is especially visible now, if I or my child comes out sick, I have to stay at home and it is not possible to participate in face-to-face lectures, but if it happens remotely, despite the illness, you can participate in the lecture.  
An understandable explanation  
Activities, so that you don't have to constantly sit at the computer, every now and then some activity  
More hours  
So that the program itself works properly and does not throw you out of your studies.  
Great work together!  
responsiveness  
Explanation of the process  
Good communication with the teacher and communication  
Distance learning was a positive experience for me  
the teacher's abilities in the digital field  
cancel remote  
Internet connection.  
Better internet  
Good weather conditions.  
In-depth knowledge of computer science is required, one must be able to deal with the technical information offered.  
digital skills  
Good wifi  
Greater availability of information and materials  
Equipment  
More pointers on where to find the information you need  
Definitely good internet coverage as there have been lectures where the connection suddenly drops at important moments and when I connect later it's hard to follow the rest of the class  
I had a positive experience  
Adequate surroundings  
More active involvement of pedagogues, not just the principle of independent learning  
Have a positive experience  
I already have a positive experience  
more ideas  
hard to judge  
Positive attitude and encouragement from teachers.  
More practice with real examples.  
Good contact with teachers  
Cooperation  
Not my style of dating

To work on our own, we just listen to lectures or talk  
Lecture notes, downloadable presentations and handouts, feedback with the pedagogue.  
Attractive lecturer, cooperative fellow students, available informative materials for supplementing knowledge  
attractive teachers  
good internet connection  
Allow remote access  
Sufficient information resource  
Possibility to maintain contact between parents/students and teachers, where it is possible to receive  
support and information from the teacher.  
Time when other family members are not at home.  
I like it very much and it's easy to get lost  
Environment  
Enable distance learning. If someone is sick, it will not delay the lessons and you will be able to listen to  
everything and not miss it.  
Mutual cooperation.  
Susceptibility  
Knowledgeable, active, creative, positive teacher  
Qualitative information  
Definitely the teacher's support and interest. As well as a suitable learning environment. I had a bit of a  
problem with the internet and the table was not suitable, so I didn't like the experience very much. And also  
to some extent removed the responsibility, purely if you look at it at school age. Because you could not  
close the camera and sleep. But it is different for smaller children.  
Distance learning has already been a positive experience for me, saving me time that I don't have to spend  
on the road.  
assign less homework  
I do not know  
good technology equipment  
Already provided  
Qualitative information  
didn't think about it  
Clear instructions, precisely formulated tasks  
Good fit  
Assign less homework  
Motivation  
Interest in learning  
Good internet  
Training on how to conduct a remote lesson  
I already feel positive when there is distance learning  
Discrete learning provided a sufficient understanding of the learning process. And it was very beneficial for  
me as a mother of two children, when the children are sick, because then I can actively participate in the  
lecture process without leaving the house. But now, when the lectures are held in person, I often cannot  
attend because of illness, because I have to be at home with the children.  
Good teachers, range of materials, computer, high-quality internet.  
Technically equipped/trained, interested and attractive instructor. PC with camera, fast internet, own  
willpower, interest in the process and achieving the result.  
Availability of handouts, as well as a recording of the lecture to promote knowledge repetition.  
Understanding from the teacher's side and technical issues.  
The teacher must be very creative, because sitting all day at the computer and listening to a monotonous  
speech is difficult.  
Good teachers and fellow students.  
learn technology better  
Feedback from the teacher, for example, after writing the study papers.  
I already have a positive experience and would also like distance learning in the future, because then I  
always know 100 percent that I will be able to attend the lecture. Visits are often affected by sick children,  
because of which I am unable to visit in person.  
Silence at home. To keep children busy.  
Time that I can devote only to studying (so that the environment around me does not disturb)  
It will depend on the teacher  
More work remotely  
I believe that remote learning in preschool is not necessary and effective.  
Good emotions while learning remotely.  
The institution has developed an algorithm for working remotely

## PEACE DURING DISTANCE EDUCATION.

reasonable duration with pauses.

Interesting topic

Distance learning was a good experience.

in my opinion, when learning remotely, you create a comfortable environment for yourself and it is easier to perceive the lessons, because, for example, when you are in Cēsī University, there are no tables and it is difficult to write down information, the air in the room quickly disappears, which causes problems to concentrate.

Good contact with subject teachers.

Understandable requirements from lecturers.

If distance learning is presented in the form of discussions, meaningful and interesting, not dry and uninteresting.

Existence of distance learning

Once in a while, however, in person

I am satisfied with the existing one

Responsibility, relying only on one's own strength

Hard to say.

Interest

More self-educated.

I have gained positive experience during this process.

Variety of content and activities, opportunity to participate in discussions.

Greater technological knowledge

more information is told by the teacher, less homework

Everything is OK

It cannot give me a full-fledged, positive experience, because I believe that you cannot learn everything remotely.

Clear requirements

High-quality Internet connection, probably also a slightly newer computer

Information about usable sources.

A positive teacher in return.

A teacher who teaches well.

More information

For the teacher to have good digital skills

Stable internet coverage

I like to listen to the lecturer

My experience is already positive.

I do not know

I don't like distance learning

If you have a good computer, microphone and camera, internet, then you will have a good experience.

In my opinion, good communication with each other is necessary.

Participate in remote meetings

distance learning should be within the limits of understanding

quality material and friendly teacher

Positive teachers, that's right :)

Active participation

If there is distance learning, there could be a discount, as additional own resources are used. And not everyone has access to the Internet and a computer at home.

own personal attitude

I like contact lessons with the teacher

Feedback, performance, and feedback. There are real indicators.

everything definitely depends on the teacher, how he teaches these lessons.

I thought it was nothing

It was an experience, I liked it

Good computer and internet connection

If the studies take place remotely, and if there are various problems with technology, then it causes stress!

More time

Internet coverage

Responsive teachers and student integrity

experience

Family support

I don't like distance learning

Communication between instructors.

#### 4. Views on computational thinking in Early Childhood Education

Based on the respondent answers, it appears that there is generally positive support for incorporating computational thinking in early childhood education (ECE). The first statement indicates that a large majority (74 out of 225) of respondents believe that children in ECE should have experiences with computational thinking.

The second statement shows that a majority of respondents (134 out of 225) express some level of enthusiasm towards computational thinking in ECE.

The third statement indicates that a significant portion of respondents (138 out of 225) believe that it is helpful to have activities connected to computational thinking in ECE. This suggests that respondents see a practical benefit to incorporating computational thinking in ECE.

The fourth statement shows that over half of the respondents (120 out of 225) feel comfortable promoting activities for children with computational thinking in ECE. This suggests that many respondents are not only interested in the topic but also feel confident in their ability to support it. Responses suggest that there is a positive attitude towards incorporating computational thinking in ECE among the surveyed respondents.

Table 19. Perspectives about computational thinking in Early Childhood Education

Variable	was not relevant / didn't have an impact		was somewhat relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have information to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
I believe children in ECE should have experiences with computational thinking.	16	7,1 %	49	21,8 %	<b>74</b>	<b>32,9 %</b>	46	20,4 %	40	17,8 %
I am enthusiastic about computational thinking in ECE.	12	5,3 %	<b>56</b>	<b>24,9 %</b>	<b>78</b>	<b>34,7 %</b>	37	16,4 %	42	18,7 %
I think that it is helpful to have activities connected to computational thinking in ECE.	9	4%	46	20,4 %	<b>82</b>	<b>36,4 %</b>	<b>56</b>	<b>24,9 %</b>	32	14,2 %
I feel comfortable promoting activities for children with computational thinking in ECE.	13	5,8 %	<b>53</b>	<b>23,6 %</b>	<b>67</b>	<b>29,8 %</b>	44	19,6 %	48	21,3 %

#### 5. Educational robotics in Early Childhood Education

Based on the responses of the 225 survey respondents, it can be inferred that there is a significant level of support for educational robotics in early childhood education (ECE). The majority of the respondents, 130N or 58%, indicated a belief that children in ECE should have experiences with educational robotics. Moreover, 126N or 56% of the respondents expressed enthusiasm for educational robotics in ECE. Also respondents recognized the value of activities connected to computational thinking and robotics in ECE. 131N or 58% of the respondents believed that it is helpful to have such activities in ECE. Additionally, a significant proportion of the respondents, 104N or 46%, reported feeling comfortable promoting activities for children with educational robotics

in ECE. Overall, the responses indicate that there is a general positive attitude towards the integration of educational robotics in ECE, with a majority of the respondents expressing support and enthusiasm for it.

Table 20. Perspectives about educational robotics in Early Childhood Education

Variable	was not relevant / didn't have an impact		was somewhat relevant / had some impact		was relevant / had an impact		was very relevant / had a great impact		I don't have information to answer this question	
	ni	fi%	ni	fi%	ni	fi%	ni	fi%	ni	fi%
I believe children in ECE should have experiences with educational robotics.	22	9,8 %	49	21, 8%	67	29, 8%	63	28 %	24	10, 7%
I am enthusiastic about educational robotics in ECE.	23	10 %	48	21, 3%	63	28 %	63	28 %	28	12, 4%
I think that it is helpful to have activities connected to computational thinking and robotics in ECE.	24	10, 7%	45	20 %	60	26, 7%	71	31, 6%	25	11, 1%
I feel comfortable promoting activities for children with educational robotics in ECE.	31	13, 8%	44	19, 6%	54	24 %	50	22, 2%	46	20, 4%

As shown in table 21 and based data, it appears that the topics of distance education for ECE, computational and algorithmic thinking (particularly the benefits for children and learning), and education for young children in emergency situations are of the highest interest to the respondents. The topics of physical programming and CT with robotics in ECE and educational robotics for inclusion had the lowest percentage of respondents signaling for further learning, but still had a significant number of respondents interested in these topics.

**TOP:**

Computational and algorithmic thinking: benefits for children and learning - 60.9% (137 respondents)

1. Distance education for ECE - 58.2% (131 respondents)
2. Methods and strategies for developing CT - 53.3% (120 respondents)
3. Education for young children in emergency situations - 52.4% (118 respondents)
4. Educational robotics: benefits for children and learning - 52.4% (118 respondents)
5. Plugged and unplugged activities about CT and curricular areas for ECE - 40% (90 respondents)
6. Coding tools that can be used to develop CT in ECE - 42.2% (95 respondents)
7. Computational and algorithmic thinking: features and types - 46.2% (104 respondents)
8. Educational Robotics for inclusion - 35.6% (80 respondents)
9. Physical programming and CT with robotics in ECE - 26.7% (60 respondents)

Table 21. Topics signaled for further learning

Variable	ni	fi%
Computational and algorithmic thinking: features and types	104	46,2%
Computational and algorithmic thinking: benefits for children and learning	137	60,9%

Educational robotics: benefits for children and learning	118	52,4%
Methods and strategies for developing CT	120	53,3%
Coding tools that can be used to develop CT in ECE	95	42,2%
Physical programming and CT with robotics in ECE	60	26,7%
Plugged and unplugged activities about CT and curricular areas for ECE	90	40%
Education for young children in emergency situations	118	52,4%
Distance education for ECE	131	58,2%
Educational robotics for inclusion	80	35,6%

## 6. Conclusions and implications for EARLY

The text summarizes data from a survey about the impact of the COVID-19 pandemic on early childhood education in Latvia. The survey focused on various aspects of teaching, learning, and communication during the lockdown period. Most of the survey participants were female and either initial teacher education students or teaching staff working with children aged 0-7 years old.

From the responses given to the question "What do you think you learned from this experience about children and their learning?", it is clear that the impact of home learning on children during the pandemic has been varied. Some responses suggest that parents were not equipped with the skills or knowledge to support their children's learning at home, while others suggest that the learning process was hindered due to lack of motivation and poor concentration in the home environment. On the other hand, some responses suggest that the experience of home learning has led to increased independence in children, and the ability to use digital tools to support their learning. Additionally, it is evident that the involvement of parents in the learning process is important, as it can greatly impact the child's motivation and progress.

- + The responses indicate that there is a general positive attitude towards the integration of educational robotics in ECE, with a majority of the respondents expressing support and enthusiasm for it.
- + Responses indicate that there is a positive attitude towards incorporating computational thinking in ECE.
- + Approximately half believe that the remote learning process can have a significant impact/had an impact or very significant impact/had a large impact in cases where children have a long stay in a hospital, children live in remote areas, children whose families/carers travel frequently, for children with chronic health problems or children with special needs.
- + There is no one-size-fits-all solution when it comes to distance education, and that the key to success lies in tailoring the learning experience to the needs and preferences of individual learners.
- Some respondents pointed out that there was no remote learning in preschool. Only 0.9% - 2 respondents who reported that synchronous moments are arranged between the teacher and the stay-at-home children.
- Respondents indicated that Early Childhood Education teachers maintained communication with families/carers but not directly with the children themselves. The most popular tools for supporting communication during the lockdown period were Whatsapp and Zoom.

- Challenges faced by families/caregivers and children during the lockdown period include lack of time due to remote work, lack of resources available at home for developing activities, and insecurity about how to engage children in activities.
- There was no clear consensus among the respondents regarding the presence of a national strategy for remote learning in Early Childhood Education during the 2020-21 academic year. While some respondents reported that there was general guidance or no strategy at all, others reported that there were specific orientations or requirements for remote learning. A significant portion of the respondents (26.4%) did not have enough information to answer the question. Therefore, it is difficult to draw a definitive conclusion about the status of a national strategy for remote learning in Early Childhood Education during that time period.

It can be concluded that the experience of home learning during the pandemic has highlighted the need for effective collaboration between educators, parents, and children. It has also emphasized the importance of creating a supportive learning environment that can facilitate the child's learning process. It has made it clear that children learn best through face-to-face interactions with teachers and other children. Remote learning is possible but there is no one-size-fits-all solution. The responses indicate that there is a general positive attitude towards the integration of educational robotics and computational thinking in ECE