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DISTANCE LEARNING IN KINDERGARTENS AS ONE OF THE DETERMINANTS IN THE ANTI-EPIDEMIC SYSTEM OF THE CZECH REPUBLIC

KSZTAŁCENIE NA ODLEGŁOŚĆ W PRZEDSZKOLACH JAKO JEDNA Z DETERMINANT W SYSTEMIE ANTYEPIDEMICZNYM REPUBLIKI CZESKIEJ

Keywords:
pre-school education,
distance learning,
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kindergarten, pre-
school child, corona-
virus quarantine

Summary: The article aims to describe the situation in kindergartens in the period of coronavirus quarantine, focusing on distance learning as a form of education. The research aimed to find out the experiences of kindergarten teachers with distance learning of children implemented during the period of coronavirus quarantine and how these experiences influenced their opinions on distance learning of children in the future. The study is based on survey methodology. The research group consisted of 93 teachers who are formally trained at various levels, but all are qualified. Distance learning was carried out via e-mail, websites, mobile phones, providing materials to children through their parents. The results revealed a number of issues: the need for Internet connection in kindergartens,

Słowa kluczowe:
edukacja przedszkolna, nauczanie na odległość, wychowawca przedszkolny, przedszkole, przedszkolak, kwarantanna, koronawirus

IT technology, ideas for distance learning, as well as for training teachers to manage distance learning with IT technology. The respondents did not agree on the age group the pre-school distance learning should start from. They did not question the age limit for compulsory distance education.

Streszczenie: Artykuł ma na celu opisanie sytuacji w przedszkolach w okresie kwarantanny spowodowanej koronawirusem, kiedy formą edukacji było nauczanie na odległość. Badanie miało na celu poznanie doświadczeń nauczycieli w związku z nauczaniem na odległość w okresie kwarantanny oraz tego, jak te doświadczenia wpłynęły na ich opinie na temat uczenia się na odległość dzieci w przyszłości. Badanie oparte jest na metodzie ankiety. Grupa badana składała się z 93 nauczycieli, którzy są formalnie przeszkoleni na różnych poziomach, ale wszyscy są wykwalifikowani. Kształcenie na odległość odbywało się za pomocą poczty e-mail, stron internetowych, telefonów komórkowych, przekazywania dzieciom materiałów za pośrednictwem rodziców. Wyniki ujawniły cały szereg problemów i potrzeb dotyczących: połączenia z Internetem w przedszkolach, technologii IT, pomysłów na kształcenie na odległość, a także szkolenia nauczycieli w zakresie pracy zdalnej za pomocą technologii IT. Respondenci nie byli zgodni co do grupy wiekowej, od której powinno się rozpocząć przedszkolne nauczanie na odległość. Nie kwestionowali również limitu wieku obowiązkowej edukacji na odległość.

Introduction

The current events in the society are constantly overwhelmed with information from the current COVID-19 pandemic. All available reports give us a picture of how COVID-19 can be dangerous to humans. At the turn of April and May 2020, the Ministry of Education, Youth and Sports (MSMT) created sanitary and safety guidelines for schools during the coronavirus situation and subsequently introduced them to schools and education authorities in May 2020. The manuals address the basic conditions of school and school facilities operation during the coronavirus situation and present epidemiological

measures and recommendations specified for individual types of schools (MSMT, 2020a). They are designated to all school staff, pupils, children, and legal representatives. Nevertheless, statistics show that the Czech Republic has a high number of infected teachers.

Regulations on overcoming the coronavirus situation in kindergartens

For kindergartens, the document specifies other operating conditions that differ (or are set beyond the scope) from the standard conditions resulting from academic, sanitation, employment, and other measures. The document covers 1) *trip to or from school*, where children and accompanying persons are subject to the general rules of conduct set out in crisis measures, in particular covering their mouths and noses with protective equipment (“mask”); and 2) *arriving at kindergarten and movement in front of kindergarten*, where it is required to *minimize* large gatherings of people in front of the school. In accordance with the crisis or emergency measures, the kindergarten is obliged to organize the movement of persons in front of the school. For persons who are not from the same household, should be placed within the intervals of 2 meters. This distance does not apply to members of the same household. All persons in front of the school building must cover their mouths and noses. In the kindergarten premises, each accompanying person must always move with a mask, and only for the necessary time, in particular, for bringing children to school and taking them back home.

In kindergartens, viruses and bacteria feel like “home”. Not all pre-school children, especially those under the age of three, have already acquired basic sanitary habits. In normal operation, teachers are in close contact with children. Wiping the nose, buttocks, helping with proper washing or feeding the youngest children, and many other tasks are among the very common activities. The ordered sanitary measure to keep distances of two meters from each other is in kindergartens absolutely impossible. Children and pedagogical staff do not need to wear masks *inside the kindergarten*. Rules are laid down for the thorough cleaning of all rooms in which children, teachers, and other school staff are located, which must be performed at least once a day. Disinfection of surfaces or objects used by a particularly large number of people must be performed several times a day (e.g. door handles, light switches, keyboards, and computer mice). Allergenic agents should be avoided. Trash cans must be emptied at least once a day. *In the classroom*, immediately after changing clothes

and shoes, everyone must wash their hands thoroughly (20 to 30 seconds) with water and liquid soap. Toilets must be equipped with running water, soap in the dispenser, and disposable paper towels for safe hand drying. Toilets are cleaned and disinfected at least once a day, and each school, in cooperation with the educational authority, must provide a sufficient amount of disinfection resources. Gloves are not necessary for normal activities. They are needed, for example, while helping with the personal hygiene of children, food preparation, waste disposal, etc. Cleaning staff must be informed and instructed on sanitary rules as well as the need for continuous cleaning and disinfection of surfaces and objects. The main preventive factor is frequent ventilation (at least once an hour for 5 minutes). There are also rules setting out what to do in case of discovering a person suspected of COVID-19 symptoms, framework rules for providing school meals in the school canteen.

There are also rules governing outside activities. It is recommended to organize activities in a manner allowing to spend more than the usual part of the day with children outside, and only the kindergarten area should be used, including the garden, courtyard, playground. It is recommended, taking into account the kindergarten's local conditions, that the groups of children take turns at intervals or that a separate space be provided for each group of children.

In the Manual, the Ministry has identified *persons with risk factors*. These include 1) over 65 year-olds with associated chronic diseases; 2) people with chronic lung disease (including moderate and severe bronchial asthma) with long-term systemic pharmacological treatment; 3) people with heart and/or large vessel diseases with long-term systemic pharmacological treatment, e.g. hypertension; 4) people suffering from immune system disorders, e.g. a) during immunosuppressive treatment (steroids, HIV, etc.), b) during anticancer treatment, c) after transplantation of solid organs and/or bone marrow; 5) persons with severe obesity (BMI over 40 kg/m²); 6) pharmacologically treated diabetes mellitus; 7) people suffering from chronic kidney disease requiring temporary or permanent support/kidney function replacement (dialysis); 8) persons with liver disease (primary or secondary). As a next measure, the Manual addresses *what to do* if an adult or child belongs to one of the mentioned risk groups.

The Manual also specifies the *personal protective equipment* the school must provide. The last measure in the Manual is the *rules before reopening schools*. For the needs of each school, an affidavit on non-existent symptoms of an

infectious disease is included. The form shall be obligatorily filled in by the child's legal representative attending the kindergarten (MSMT, 2020c), Set of sanitary guidelines for schools and school facilities).

Change of the recommended form of education

At the time of emergency statement (in March 2020), in contrast to higher schools, pre-school education did not face any restrictions regarding children's physical presence in the school. The decision to close or restrict kindergartens' operation was left to the local educational authorities upon an agreement with school headmasters. According to the Czech School Inspectorate (CSI), in the period from April to May, almost 95% of kindergartens remained closed for more than one month. Only 5% of kindergartens did not close, and 1.5% of kindergartens did not limit their operation in any way. The number of children in some kindergartens has decreased, not because of the children being ill, but because of the quarantine they had to follow due to the illness of their parents or other family members.

Distance learning has become the recommended form of education, and its organizational provision was at the discretion of school headmasters. This current situation was new and complicated for all kindergartens, as well as for parents and their children. Families with children had to review their responsibilities and the time spent with children, the way to adequately keep them entertained, or even educate. At that time, the kindergarten teachers were of great help to such families. They tried to maintain contact with children and parents in various ways and use available options while still fulfilling and adhering to all epidemiological measures. Teachers in 9 out of 10 kindergartens created for children or their parents activities for children. A significant finding was that a large number of kindergartens (24%) lack digital devices (computers, laptops, internet connections). As a positive finding, this survey found out that some kindergartens have adopted more advanced forms of distance education than sending e-mails or publishing information on websites (CSI, 2020). In summary, the survey showed that kindergartens played their primary role even in times of emergency, i.e. supported the development of each child and provided parents with various incentives for home-schooling.

Coping with the second wave of coronavirus in kindergartens

Autumn 2020 brought another emergency due to the coronavirus crisis. Primary, secondary and tertiary schools were closed, but all kindergartens remained open. The reason was to maintain work performance of parents, not only those working in the integrated rescue system but all. Headmasters, teachers, and other kindergarten staff understood the difficult situation, worked energetically, and kept in mind that they could help people “in the front line”. Despite lacking the skills of paramedics, they were brave enough to work, though being afraid of the infection and worrying about their family and their loved ones, including entrusted children, who were in daily contact in kindergartens.

The teachers work with full commitment. They plan, design, perform tasks from school and class educational programs, individual educational plans, diagnose, evaluate, honestly perform assigned tasks. There can be up to 28 children in a group in kindergartens. The children’s organism is still very young and is often subject to various common colds and viruses. They teach basic sanitary skills to the youngest children, and, at this time, mainly emphasize the use of handkerchiefs and the correct technique of blowing their noses.

Currently, the operation of kindergartens is not closed or restricted in any way, but if the situation changes and kindergartens are closed, the teachers are already ready for such possible change. The situation would probably bring about the demand and need for online educational of children.

Since August 25, 2020, the amendment to the Education Act promulgated under No. 349/2020 laid down rules for providing distance education to children, pupils, and students (MSMT, 2020d). The rules also apply to kindergartens. In defined emergency situations, they must provide distance learning for children for whom education is compulsory if less than 50% of them attend the kindergarten group, or a separate educational facility. According to the law, the education of children in the last year of attending kindergarten is mandatory. It is recommended to provide distance learning to ill children, even if their number does not make up the majority of the class (group) of preschoolers. Children can participate voluntarily, given the conditions (mainly time and other preconditions on the part of the children’s parents and their socio-economic situation). At present, all kindergartens follow the MSMT manual *Operation of schools and school facilities in the school year 2020/21 with*

regard to COVID-19 (MSMT, 2020b), which elaborates the amendment to the Education Act in more detail.

Method

The respondents answered the questions with regard to their experience, as the period of kindergartens closure occurred in the spring months of the school year 2019/2020. It should be noted that, at that time, no regulation or other document had yet stipulated to provide distance learning for pre-school children. Since it was a new socio-pedagogical situation that is likely to repeat, it is certainly in the interest of all involved to find out as much information as possible about its course and evaluate it to effectively manage similar situations in the future. The answers gave us an insight into selected kindergartens, and some were quite surprising.

The research aimed to find out the experiences of kindergarten teachers with distance learning of children implemented during the period of coronavirus quarantine and how these experiences influenced their opinions on distance learning of children in the future.

The partial objectives were formulated into the following research questions:

1. How did the respondents implement distance learning of pre-school children in kindergartens, and by what means?
2. What did they need for effective implementation of distance learning of pre-school children?
3. For which age group did teachers implement distance learning, and which age group would they recommend distance learning?

Sample. The respondents were from the Moravian-Silesian Region of the Czech Republic who shared their previous experience with distance education. The sample was selected based on participants' availability. We obtained answers from 93 female respondents. Of these, 37 were kindergarten headmistresses, i.e. 39.8%, 23 were headteachers, i.e. 24.7%, and 33 were regular kindergarten teachers, i.e. 35.5%.

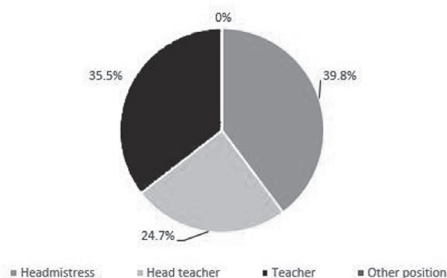


Figure 1.

Position.

Source: Own calculation.

The education levels of the respondents were as follows: those with a university degree (of which 25 respondents obtained a bachelor's degree, i.e. 26.9%, 22 respondents obtained a master's degree, i.e. 23.7%), and 44 respondents completed secondary education, i.e. 47.3%.

The qualification required of a kindergarten teacher can be obtained in the Czech Republic at three levels, i.e. at secondary vocational schools with a school-leaving exam (corresponding to GCSE), by completing a university bachelor's program in early childhood education, or by taking a master's program in pre-school pedagogy. The finding that the number of teachers with a university pedagogical education was higher in our research than the number of teachers with a secondary school pedagogical education is considered a positive result.¹

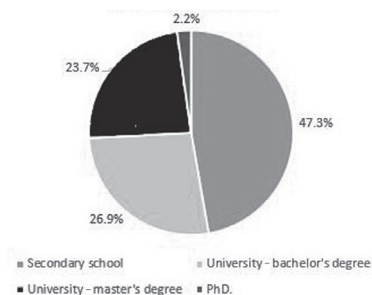


Figure 2.

Achieved education.

Source: Own calculation.

¹ This fact demonstrates the awareness of the need for higher education among applicants for this profession, which is in line with the increasing demands on the quality of pre-school education.

The length of seniority was over 31 years in the majority of respondents, represented by 44 participants, i.e. 47.3%. The second category, in terms of the length of professional experience was between 21–30 years, indicated by 18 respondents, i.e. 19.4%. The rest of the categories were: 16–20 years of professional experience, represented by 10 respondents, i.e. 10.8%; 11–15 years, represented by 4 respondents, i.e. 4.3%; 6–10 years, represented by 10 respondents, i.e. 10.8%; and 0–5 years, represented by 7 respondents, i.e. 7.5%.

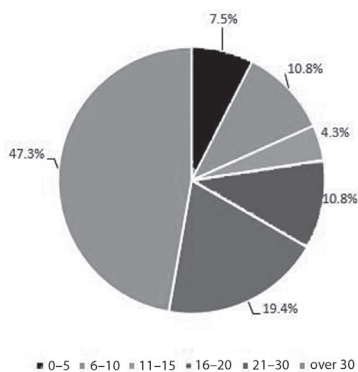


Figure 3.
Length of professional experience.
Source: Own calculation.

Results

To obtain the necessary data, a quantitative approach with survey methodology using open questions was used. The first question of the survey was aimed at investigating the manner in which the respondents implemented distance learning for pre-school children in kindergartens.

Along with the answers that provided us with specific findings, we also received answers in which 3 respondents, i.e. 3.23%, expressed a *negative opinion* on distance learning of pre-school children.

48 respondents, i.e. 51.68% of teachers implemented distance learning electronically, via *e-mails*. 21 respondents, i.e. 22.58%, worked with the kindergarten *website*. The teachers also used the so-called closed group on a public website for distance learning using *Facebook* application. 7 respondents, i.e. 7.53%, worked with parents in this way. As another possibility of distance learning, the teachers presented *mobile radio* – introduced by 6 respondents,

i.e. 6.45%. Teachers also chose personal *contact* with parents to hand over tasks for the children in compliance with sanitary measures. This approach was chosen by 11 respondents, i.e. 11.83%. 4 respondents, i.e. 4.30%, said that they chose a *mobile phone* for distance learning and the other means they used were parents' *mailboxes*, in which they put written tasks for children.

Figure 4 illustrates item 1 of the survey: How did you implement distance learning of pre-school children in kindergartens?

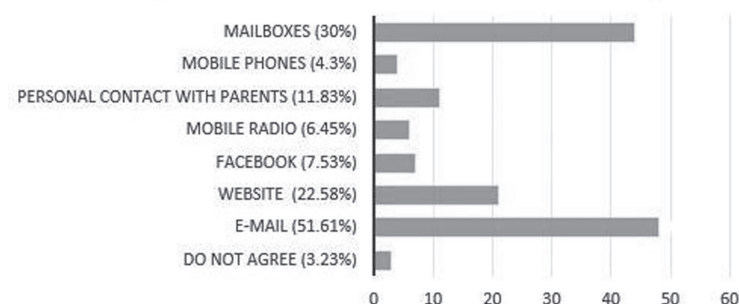


Figure 4.

Recommendation for the implementation of distance learning.

Source: Own calculation.

Another survey item helped to identify the means by which the respondents implemented distance learning practices for pre-school children in the kindergarten.

The *means* of distance learning used were the themes of activities for children focused on the educational areas of the *Framework Educational Program for Pre-Primary Education (FEPPE)*, which was the choice of 44 respondents, i.e. 47.31%; 21 respondents, i.e. 22.58%, answered that they used *worksheets*. *Links to exercises from the website* were provided by 7 respondents, i.e. 7.53%.

Regarding this item, the respondents stated their need for contact with parents and children at the time of closed kindergartens.

Figure 5 for item 1 of the survey: What means did you use to implement distance education practices in teaching pre-school children in kindergartens?

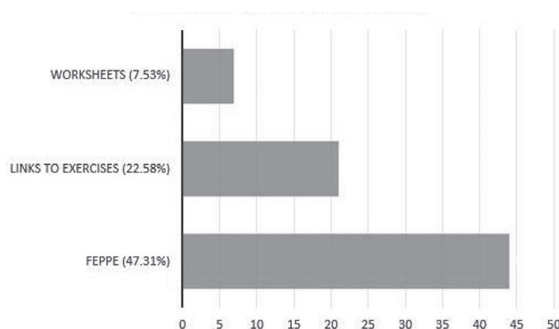


Figure 5.
Possibilities of distance learning.
Source: Own calculation.

The second item studied what kindergarten headmistresses and teachers needed for effective distance learning of children.

The answers of 6 respondents, i.e. 6.45%, were positive, stating that they had *no limitations*, as their kindergarten is fully equipped to handle the situation of kindergarten closure and the subsequent distance or remote teaching of children.

Very surprising seems to be the answer provided by 15 respondents, i.e. 13%, who stated the need *for an Internet connection*, or even the need to *access a computer*, from which it can be identified that kindergarten still does not have an Internet connection in the 2020s and it might imply that the kindergarten teachers have no access to IT at all.

50 respondents, i.e. 53.76%, said that they would welcome the kindergarten to be equipped with *digital equipment, computers, headphones*; and 22 respondents, i.e. 23.66%, would need to equip the kindergarten with *printers and copiers*. This reflects the situation in education, where the digital equipment of kindergartens was not taken into account or kindergartens were the last to be provided with the cutting-edge technologies; thus, they did not receive funding either from the Ministry or from the educational authorities.

Other communicated needs were *ideas and suggestions for educational topics, didactic material for the education of children*, as stated by 11 respondents, i.e. 11.83%. Quite surprising is the answer that teachers would need training in working with ICT for the needs of distance learning of children. This answer was provided by 11 respondents, i.e. 11.83%. Furthermore, 7 respondents, i.e. 7.53%, lacked a sufficient number of *cartridges for printers*. The shortcoming

of the questionnaire in terms of data collection is that some statements are not always understood properly. Such as in this case with the need for didactic material for distance learning.

Respondents were quite sensitive in identifying the needs of parents in the distance education of their children. The parents commented on their computer availability; not all of them are equipped with this device. Furthermore, the parents stated that they need to communicate with the teachers during distance learning due to partial evaluation of their educational activities with children and whether they work with children according to the teachers' assignment, i.e. correctly.

Less represented but mentioned need expressed by the respondents was the necessity of *access to the workplace*, i.e., entering kindergarten. During the state of emergency, the kindergartens were closed, and some school headmistresses banned teachers from entering the workplace. This expressed need on the part of the teachers states that teachers could not use the didactic inventory of the kindergarten or their educational portfolios for distance learning. Another expressed need was a *financial* need, namely the *means for evaluating* all teachers involved in children's distance learning. *I do not know*, and the need for *motivation* were also found among answers.

Figure 6 for item 2 of the questionnaire: What did you need for implementing effective distance learning for pre-school children?

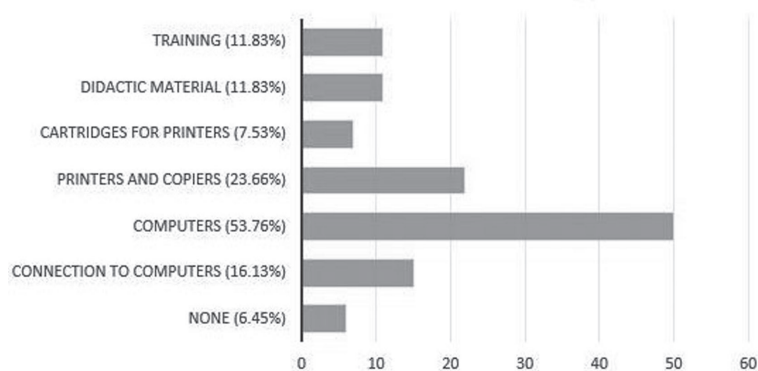


Figure 6.

Needs for distance learning.

Source: Own calculation.

The third item asked whether the kindergarten headmistresses and teachers perceive distance learning as an *obligation only for children in the last year of pre-school education* or whether they would recommend distance education for children of other age groups and asked for justification their opinion.

The answers showed two perspectives on the discussed matter. The findings are supplemented with some comments with which the respondents reasoned their answers.

The first largest group, represented by 48 respondents, i.e. 51.68%, spoke in favour of distance learning only for children in the last year of pre-school education. According to their opinion, younger children do not need distance education. Some respondents stated that distance learning is unnecessary for this age group. According to them, children under the age of five should play with toys. Another reason mentioned for distance education of only children from the age of five, for example, was that younger children learn the most from their parents and siblings. These views were reinforced by the statement that if a child is at home, the parents should spend this time with the child as much as possible. Other opinions indicate that younger children are still developing and do not yet need to perform the tasks assigned by the teacher.

The second view was expressed by a group of 29 respondents, i.e. 31%. This group was of the opinion that all age groups of children can be educated remotely. A group of 6 respondents, i.e. 6.45%, who expressed the need to educate younger children, but not below 4 years, complemented the mentioned opinion group. The respondents justified their point of view by claiming that these children are able to cooperate with their parents over the assigned tasks and thus have the necessary contact with the teacher and the kindergarten. They also perceive the benefit for parents. Through distance education, they have the opportunity to get to know the diverse work with the child and understand the differences in the approach of professionals to children in different age categories.

The opinion of 9 respondents, i.e. 9.68%, is also interesting, providing the idea that the education of children younger than in the last year of pre-school should be based on voluntariness on the part of their parents. The respondents also mentioned the very positive feedback from the parents during the implementation of distance learning in the period of closed kindergartens. The parents were interested in and appreciated the variety of educational tasks assigned by the headmistresses and the teachers.

Figure 7 to item 3 of the questionnaire: For which age group did teachers implement distance learning, and for which age group would they recommend distance education?

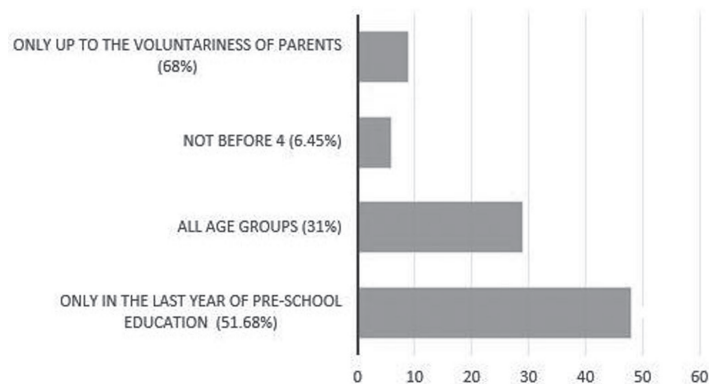


Figure 7.

Need and implementation for distance learning for different age groups.

Source: Own calculation.

Conclusion

The communication of the gained experience with distance education of children from the period of closed kindergartens due to coronavirus quarantine and a view on new possibilities by which the headmistresses and the teachers are probable to implement distance learning in the future showed a possible form of distance learning that can be effective and feasible with pre-school children realized by the kindergarten.

The study results showed us the teachers' opinions on distance learning of children of different ages, which they gained based on experience. Not all teachers changed as a result of the reflected changes and conditions of the current situation.

From some answers, we got the impression of the respondents' fears about the possible preference for children's distance education. These concerns seem to be completely groundless. Perhaps they were evoked by the new obligation of the kindergartens to provide distance education. However, the world is moving towards the development of digital technologies, and these will make their way into kindergartens as well.

Although mainly the teachers who somehow implemented distance learning participated in the survey, we obtained the initial and detailed information about distance education and teachers' experience in kindergartens. This represents a completely new issue that starts affecting the activities of kindergarten teachers, and it does not seem to be a passing thing. We hold an opinion that in future, distance learning will certainly become a common way of educating children in kindergartens.

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