Adapting to a new education era: overcoming challenges in preschool education during pandemic times

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Abstract

The art of teaching consists in adapting the structures, contents, teaching strategies, classroom management issues, as well as managing the conditions imposed by the contemporary contexts of society, the constant adaptation of the strategies, used by the teacher, to the needs of the children, while trying to find a balance between the traditional training method and the use of technology. The challenges brought by the context of the last years, in terms of the protection and safety of our health due to the COVID 19 pandemic, have put the education system to the test from all points of view: from a technological point of view, the lack or poor training of teachers in terms of digital competences, the poor functionality of certain school platforms used, etc. However, teachers have implemented ideas that give value to the teaching act, by reinventing themselves, striving to find innovative solutions so that the teaching activities can continue to take place. The aim of this paper is to identify the biggest challenges faced by Romanian teachers in preschool education in the pandemic context, understanding how they managed to adapt and what solutions they found and applied for carrying out the teaching activity. In this respect a questionnaire was developed and distributed among pre-school teachers during November 2021 – January 2022. The results of the research identified a series of difficulties faced by the participants, generated by a multitude of elements such as: lack of technological equipment, low digital skills, difficulties in organizing and supporting the learning activity. An essential aspect regarding the online teaching activity with kindergarten children was the reluctance and non-involvement of parents, many parents not agreeing with the use of the computer and the internet for a long time.

Keywords: education, emergency remote education, teachers` skills.

Introduction

Working with pre-schoolers most of the time requires an integrated approach, in which the main tool is undoubtedly free play or didactic play. Taking into account the pandemic context and the way in which the activities in kindergartens have been carried out since March 2020, when the Ministry of Education and Research took the decision to suspend the face-to-face courses, the education system had to turn to new practices and methods to continue its activity. Even though the preschool institutions were the first ones to return to face-to-face teaching, it encountered one of the most challenging situations during online teaching mostly because of the very young age of the pupils.

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Although digital education is not at all a new concept, technology being integrated and used during the educational system was a challenge, which produced and still produces transformations, with numerous advantages, but also with risks to which children are exposed by carrying out the instructive-educational process through technology (Barnett, 2021). The use of new technologies, tools and digital resources offers new opportunities, making the teaching-learning-assessment process much more attractive and efficient, ensures an interactive and diversified learning experience, but the exclusive use of means of communication through education has put and still puts an enormous pressure on the Romanian education system, because: (Botnariuc, 2020)

- the school system is just to some extent prepared due to the fact that some teachers are not sufficiently prepared to use technology on a daily basis at work;
- the curriculum provides limited transposition into emergency remote teaching activities;
- the digital education technology did not manage to fully respond to the needs of the educational system.

Online education has come with a great challenge in terms of professional development and teacher training for this form of education, especially in the case of pre-school education (Gayatri, 2020). Preschool education, like all other branches, has known a completely different structure, another form of organization and manifestation, a different approach, producing radical transformations in terms of content and the way of carrying out activities, but especially in terms of the socio-emotional development of children (Barnett & Jung, 2020).

One of the most important changes brought by the pandemic is perhaps the transformation of non-formal and informal education into formal education, in fact a fusion of these three different forms of education, an aspect viewed from the perspective of the place of activity, the role of the teacher, the participants involved in the instructive-educational process, but also the contents, the instruments and the resources used. Thus, by carrying out the instructive-educational process in the online version, the formal education that used to take place exclusively in school, passed into the sphere of non-formal education, which implies the presence of the teacher but in another context – outside school environment, and also with the influence and involvement of family members that were present during classes (Gelir & Duzen, 2021). In this period, a positive aspect of the continuous development of technology was the existence of a wide variety of digital tools and resources that facilitated the access to information and promoted an educational system based on active, interactive and much more attractive learning for children (Yıldırım, 2021).

With all the advantages offered by technology, the influence of the teacher for preschool education underwent changes that limited his interventions by decreasing the possibility of intervention that the teacher could have had in order to address certain undesired behaviours, and reducing the possibility of individualizing certain work tasks, or limiting the intervention in certain situations (Timmons, 2021).

The biggest challenge in the case of activity with kindergarten children is precisely the management of distance learning situations, a challenge for both teachers, parents and children (Pascal & Bertram, 2021). In the case of pre-schoolers, parents, grandparents, family members also become part of the instructive-educational process, through direct or indirect involvement in certain activities of the teacher with children, having the role of guiding, pointing or directing.

Equally provocative is, in an uncertain context, the formation of a tribal class, based on attachment. Therefore, in order to form a tribal class, realizing the importance of social intelligence, it requires the trust and cooperation of teachers, parents, children, but also of the representatives of the institution's management. Building a tribe is an art form, guided by empathy, tuning and human sensitivity. Therefore, the tribal class must be firmly founded in the hearts and minds of the teachers who will be the tribal chiefs and in those of the parents and principals who will support them (Cozolino, 2017).

Regardless of the place of activity, the same author identifies four key aspects of learning, namely (Idem, 2017):

✓ Secure and confident relationships
✓ Reduced stress and emotional activation
✓ Balanced focus on thoughts and emotions
✓ Creatively building stories

Whether it is in the group room or online, the relationships between the teacher and the children and the relationships between children are essential for the harmonious development of the pre-schoolers and especially for the creation of the group personality, in which there is inclusion, that there are certain common goals to be achieved, and the responsibilities are shared (Dias, et al, 2020). Children will interact much more easily with each other, they will integrate information about the world around them much easier when they know empathy and compassion, when they communicate constantly and openly and have a common purpose. This strengthens compassion, trust and cooperation (Su, et all, 2022). Children have an innate curiosity, and in the case of pre-schoolers this curiosity acquires quite large dimensions, so through the activities they conceive for online lessons, the teacher for preschool education must keep this curiosity ablaze, cultivate their creativity, because when students are motivated to learn, they naturally assimilate the skills they need to perform their tasks. Their self-control increases as creative ambitions expand (Robinson & Aronica, 2015).

If the training in the classroom focuses on teaching methods that are based on learning through discovery, self-expression and activities in small groups, in the online version these things are very difficult to achieve, so the teacher is forced to find complementary and sometimes alternative activities that will satisfy these children's learning needs. The art of teaching is to find a balance between traditional teaching and emergency teaching, caused by the pandemic (Perwitasari, 2021). Although constrained by many limitations imposed by carrying out the activity in the pandemic context, the teacher, through the multitude of roles it plays, is in a continuous learning and

improvement process, so she/he must find the most effective resources, tools, contents, strategies to keep the children's interest awake and to motivate them to learn, because to be a wonderful teacher is to find your own way to do things [...] children neither need nor want teachers like identical automatic robots (Beadle, 2020).

The implication of COVID-19 in the teaching activity

The educational process has suffered a major disruption due to school closures, quarantine, restrictions imposed on protection against the virus, with school activity experiencing different, fluctuating and uncertain stages regarding the venue. Thus, in the guide issued by Unicef (UNICEF, 2020), the report entitled: `*Creating resilient education systems in the context of the COVID-19 pandemic*` we identify the following principles of activity planning in conditions of uncertainty, which ensure a better management of learning situations so as to respond to various local contexts:

✓ Extensive community involvement

✓ Focus on mission and long-term goal

✓ Focus on controllable elements

✓ Encouraging the exchange of information at local level

✓ Clear and frequent communication

As in other countries, the Covid-19 pandemic has significantly disrupted the instructive-educational process, while amplifying numerous inequalities existing in the Romanian education system, but at the same time it has opened new perspectives, identifying new ways of teaching- learning-evaluation, new ways of communicating with children and families and creating new roles to increase the general level of well-being of children / students (Edelhauser & Lupu-Dima, 2021). Surely many of the teaching resources and methods used in the emergency remote education period, from the point of view of health protection, will find their place and become part of the activities carried out during the face-to-face activities or will be used in interdisciplinary activities (Pramling Samuelsson, 2020).

A great challenge for teachers was the selection or creation of learning resources necessary for the teaching activity, in a context of continuous modification of the way of achieving learning. Online learning has experienced an upward dynamic, being achieved through individual learning experiences or guided by the teacher, in both synchronous or asynchronous learning settings, using a range of devices such as mobile phones, laptops or computers with internet access. That is why, pupils, were able to participate and learn from any location, being spatially independent (from anywhere) to learn and interact with their teachers and peers (Christmas & Grosseck, 2020).

As Malta Campos & Vieira, (2021) commented that both communities, families, but also the teachers and especially the children that have experienced life under the pandemic have different life conditions that may affect their ability and willingness towards learning. That is why schools must open more to their children needs while

parents need to implement new routines with their children that can help children make a split between school and home's spaces and times.

Moreover, at a Romanian context, Guțu and Sava (2021), highlighted through their study the presence of a positive link between preschool teachers' perceptions and their practices in enabling wellbeing. A statistically significant difference was perceived between teachers' practices in urban vs. rural settings meaning that in rural backgrounds teachers tend to use strategies to tackle this more often.

Methodology

Research objectives

Assuming that the suspension of face-to-face courses (an on-off process between March 2020 to October 2021) directly influenced the achievement of instructive-educational objectives in preschool education and that teachers in pre-school education, who carried out online activities, have encountered difficulties in carrying them out, this research aims to investigate how teachers managed the learning situations, in preschool education, in a context of u emergency remote education. In this respect a questionnaire was developed and distributed among preschool teachers during November 2021 – January 2022. The questionnaire was developed taking into consideration the knowledge provided by the literature review.

The following objectives were tackled:

1. to highlight the impact of carrying out the teaching activity in an emergency remote education system in preschool education;
2. to highlight the challenges faced by teachers and their level of digital skills regarding carrying out online activities;
3. to highlight how teachers managed the difficult learning situations and emphasizing the importance of keeping pupils` motivation for learning;
4. to highlight the importance of the pupil's family in supporting the teachers and in motivating the pupils to attend online activities;

Participants and research method

A total of 50 participants responded to the questionnaire among which 40% of them are preschool teachers working in rural areas and 60% of them working in urban areas. All teachers stated that during the pandemic times they have been involved in remote teaching activities. All respondents are female which could be identified as a characteristic of the Romanian preschool education system. The questionnaire was made available online through Google forms and was distributed through online platforms/social media pages dedicated to teachers and also e-mails were sent to teachers or educational institutions regardless of the geographical area.

All the questionnaire items that were considered for this paper were closed ended. The data received through the questionnaire administration was analysed using frequency analysis. The present study does not claim to generalize the captured data nor

by their interpretations in terms of cause and effect, the main limits being given by the characteristics of the group of participants reduced numerically, relatively homogeneous structurally and without variation regarding the institution/environment of origin. However, the procedure used captures a real moment with novelty features at the personal and organizational preschool level, which can substantiate an intervention of education improvement / optimization and can highlight lessons learnt.

Study limitations

The results of the present study should be considered in the light of the main limitation of the research approach and that is the composition of the group of respondents. Having a small number of respondents that it is not a statistically representative sample, we cannot generalize results at the level of the entire Romanian population of teachers in preschool education. In this sense, we consider useful as future research directions to focus on the expansion of the study on a larger sample all across the country. Also, we find useful to carry out a qualitative / mixed research methodology that could give a more in-depth knowledge of challenges that pre-school teachers have encountered.

Results

To carry out this study, we conducted descriptive (frequency) analyses on a few items after data collection and before analysing the hypotheses to assess how respondents felt about remote education and how they had acclimated to the conditions of the virtual world.

From the start we collected data on the most used means of communication between teachers and their class pupils/kids` families, teachers mentioned online platforms for conferences such as Zoom or Google Meet, or applications for asynchronous communication such as WhatsApp or Facebook Messenger and online tools and applications and largely Kinderpedia platform. The most widely used asynchronous communication application was WhatsApp, through which teachers sent parents various worksheets and video-audio materials. The present study identified significant differences between rural and urban areas in terms of availability of technological tools, availability and involvement of parents in the educational process, but also the level of digital skills of preschool families. In rural areas, when the context did not allow online activity (lack of internet access, lack of technological equipment, non-involvement of parents), teachers said that they have shared worksheets, personally taking them to the children`s house, made various video recordings that they transmitted to pupils when they had the opportunity to meet face to face.
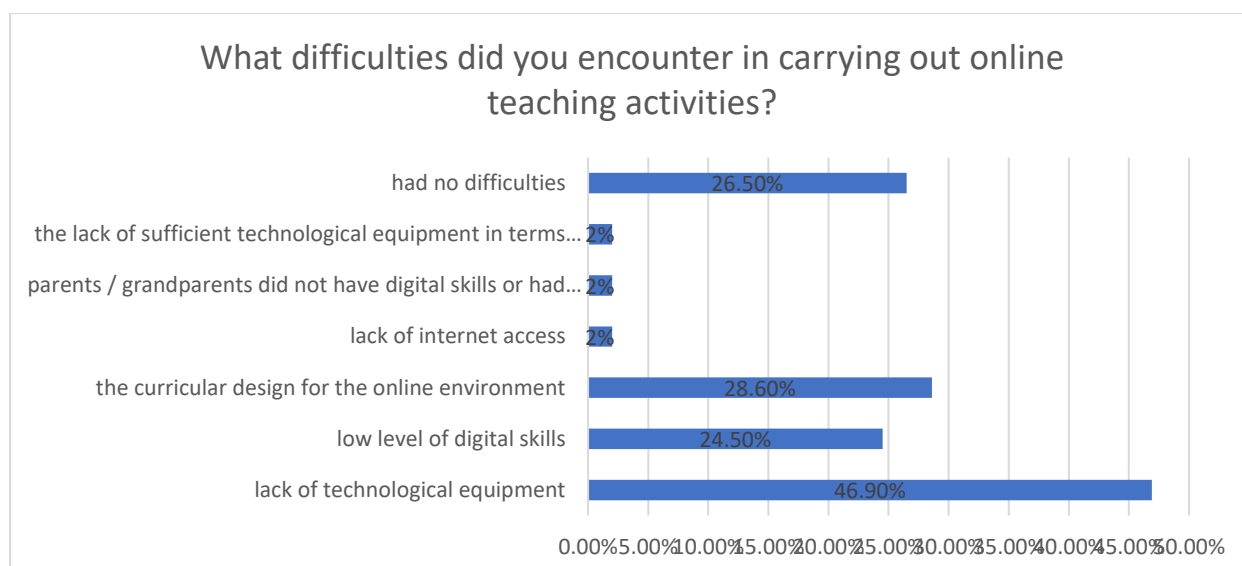
Figure 1. Difficulties encountered in carrying out the online teaching activity

In carrying out remote teaching activities, teachers have encountered a number of difficulties. Thus, about 47% of the respondents faced the lack of technological equipment, approximately 25% of the respondents encountered problems in carrying out their activity with a low level of digital skills.

An essential aspect in the situation of emergency remote education is the fact that in rural areas there are many children who come from disadvantaged families and do not have technical means to carry out the teaching activity in the online environment. Another difficulty faced by over 28% of respondents was the curricular design for the online environment. With little share, the teachers also pointed out other difficulties such as: lack of internet access, the impossibility of children to participate in the online activity due to the fact that parents / grandparents did not have digital skills or had to go to work, the lack of sufficient technological equipment when there were numerous family members.
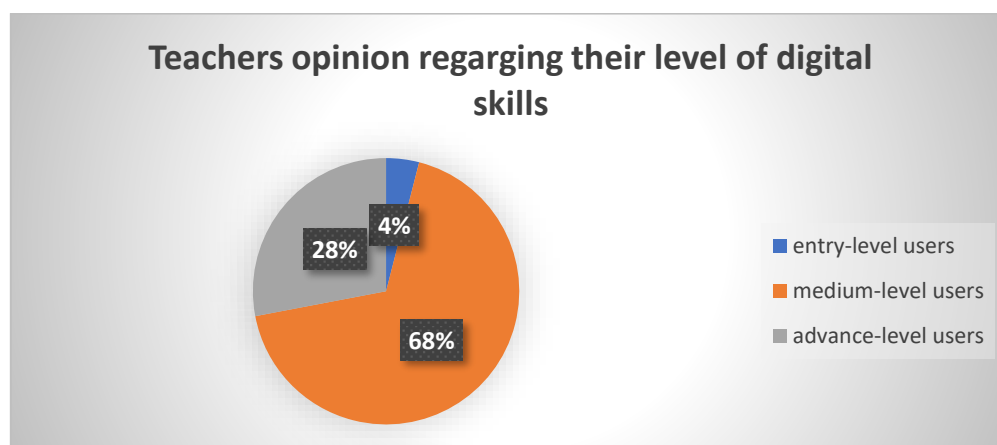

Figure 2. Teacher's level of digital skills

The level of competences to use new technologies was the second major difficulty faced by teachers. Thus, 68% of the respondents consider themselves medium-level users, meaning that they were able to make use of the computer but faced limited digital abilities. Only 28% of the teachers admitted being advances users and felt confident in accessing online application to foster the learning process. satisfied with their abilities in carrying out activities. 4% of the teachers express their limitation when using digital tools underlying the fact that they need to go through a process of improving their knowledge in the field of technology, in order to apply it in the teaching activity. In this respect, we consider necessary that teachers must be able to attend certain courses in order to acquire digital skills necessary to carry out the online activity because applying new technologies to the educational field is key for today's teachers. Moreover, it is important to provide the necessary technological equipment for each education institution for carrying out with the emergency remote education. A step forward that fulfils this requirement was done through a Romanian Government Emergency Ordinance no. 144/2020 who states as measures the purchase of technological devices and the distribution of non-reimbursable external funds that were a necessity for the implementation of teaching activities carried out during 2020/2021 school year, a year characterised by the risk of SARS-CoV-2 coronavirus infection.
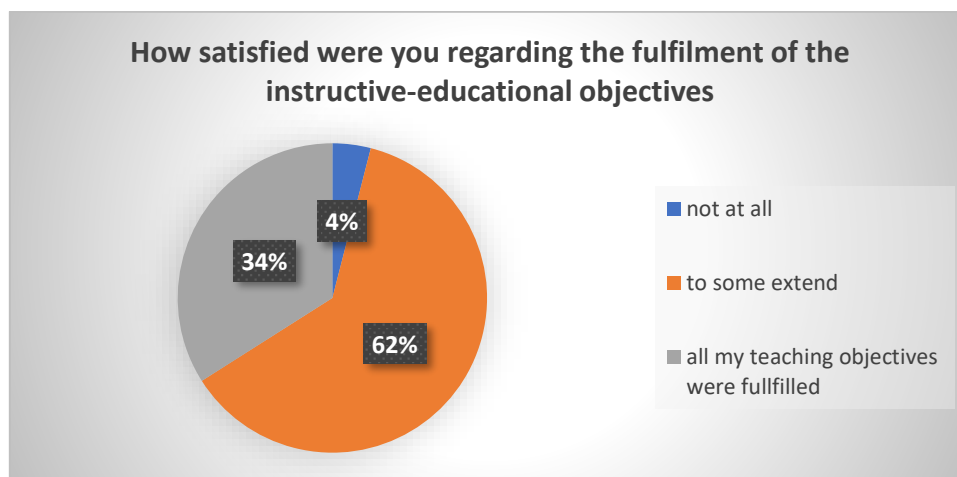

Figure 3. The degree of fulfilment of the instructive-educational objectives

During the teaching activity in the online environment, in terms of the efficiency of distance learning, the activity of pre-schoolers was certainly the most affected of all levels of education, being a `difficult test` for pre-schoolers or even impossible, in most cases. The responses of the teachers suggest that the difficulties encountered in carrying out the teaching activity directly influenced the achievement of the instructive-educational objectives. Thus, only 34% of the respondents fully achieved the proposed objectives, 62% of the respondents partially and 4% did not reach the proposed objectives at all.

In the case of pre-schoolers is very difficult to fully achieve the educational objectives, in the opinion of many of the respondents because this form of education is inappropriate

for children aged 3-4 years old. Unlike previous years, where the use of a pre-packaged curriculum was common, teachers now felt the pressure to build the best curriculum for their pandemic-teaching requirements, meaning that teachers have to select materials from multiple sources they found online, and also be able to create their own materials using the online application that are available to use on the internet.
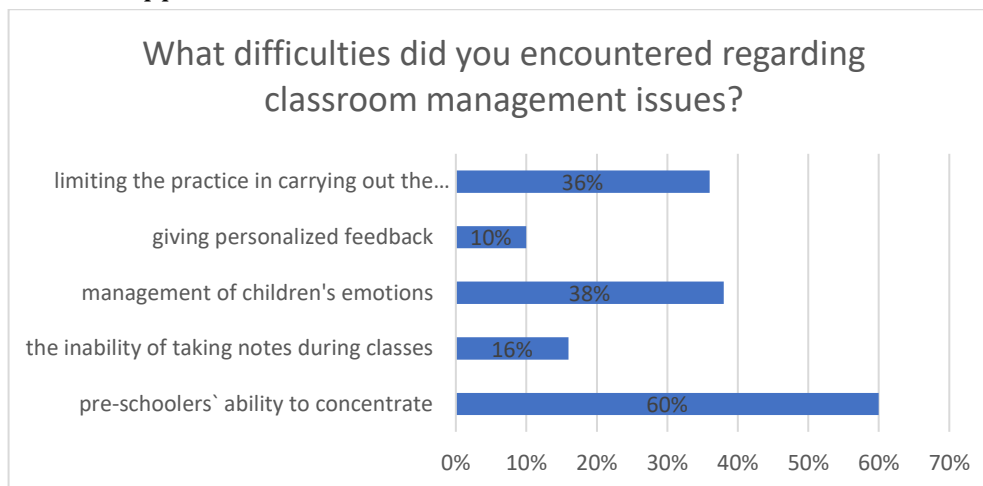

Figure 4. Difficulties regarding classroom management issues

Although the children were active and eager to respond, the age of the pre-schoolers, their ability to concentrate, their attention, patience are only some of the factors that raise problems in terms of carrying out the teaching activity in the emergency remote education.

The management of learning situations, in the case of pre-schoolers, is even more complicated because they are very easy to distract, so 60% of the teachers surveyed agreed that the biggest challenge in terms of classroom management was pre-schooler ability to focus on the provided learning task. The second difficult aspect that teachers (38%) identified was the management of children's emotions. It is very difficult to provide support, to help the child overcome certain states, to understand specific emotions, since certain things cannot be delivered through technology.   Children need feedback, they need their work to be appreciated, they need validation for everything they do, to strengthen their self-esteem and increase their self-confidence. The limitations of online education, as well as the lack of authentic dialogue or the impossibility of tracking and correcting children's behaviours and reactions are one of the most common limitations of the emergency remote education.
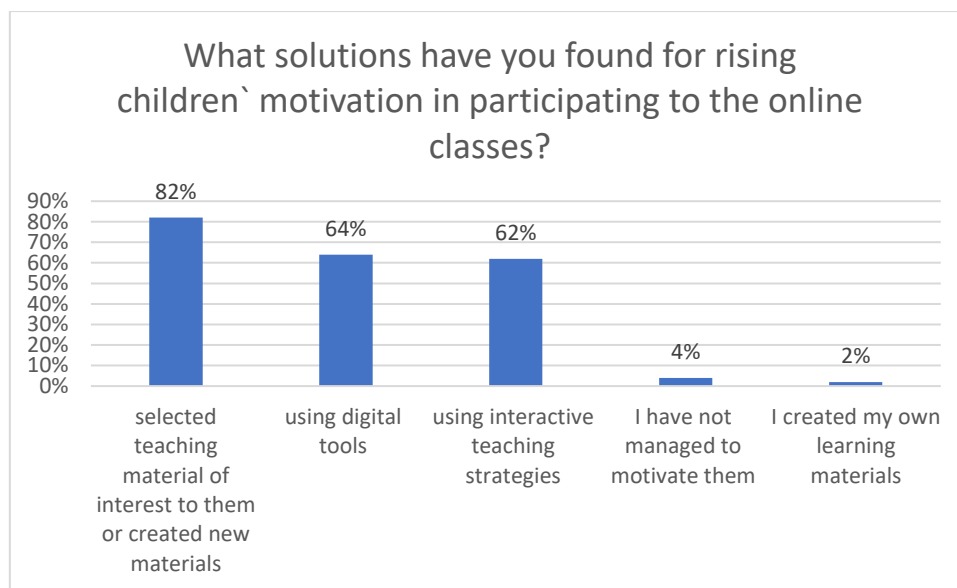
Figure 5. Solutions for rising children` motivation

Although is it very difficult to manage and conduct of remote education with pre-schoolers, several solutions for rising children` motivation arose. Digital teaching and learning resources are numerous, but of particular importance is the selection of those that are captivating and interesting enough for children, but especially adapted according to the individual peculiarities of the children and the educational objectives.

In order to get them to engage in the activity, the teachers looked for ways as varied as possible. Thus, 82% of the respondents stated that they have selected teaching materials online or they have created their own materials. In selecting and designing these materials, the teachers took into account the age of the children, as well as the wishes and recommendations coming from children own interest, and they varied from: stories, role-playing games, educational games, various video-audio recordings, etc.

The use of digital tools was, as specified by 64% of the teachers, the most used way to win the interest of children and get them to get involved in the learning activity. Only 2% of the teachers stated that they prepared their own materials, that is consistent with their previous declaration regarding their limited digital skills.
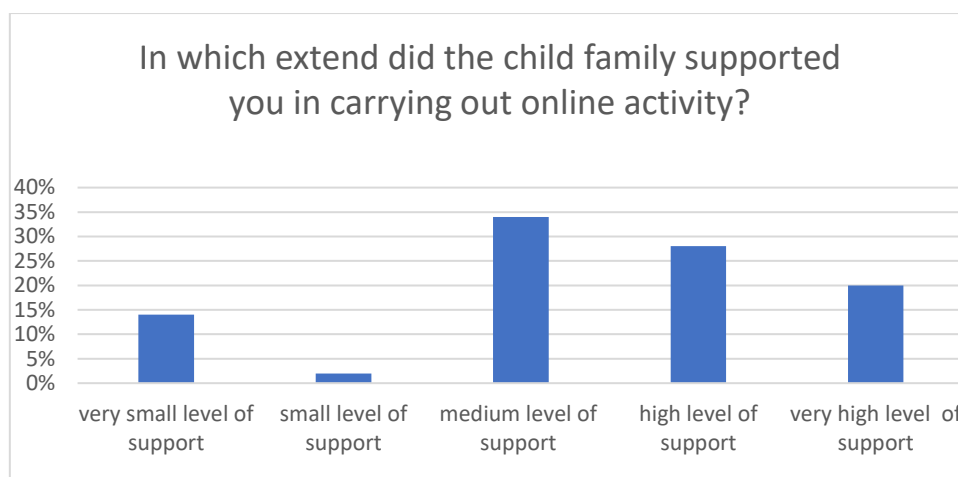
Figure 6. Family support in carrying out online activity

Opinions are very dispersed regarding the involvement of parents or other family members in the online activity, online education being viewed with reluctance by both teachers and parents especially at this age level. As mentioned before, the support of children in carrying out the online activity was closely dependent on the level of digital skills of the children's family members, the possibility to access to the internet as well as the technological equipment available in the pre-schooler family. 28% of the teachers that responded appreciated family support in accruing out remote education to a high level of involvement and support of children in teaching activity, while 20% appreciated it to a very high level of support.

Conclusions

The present study reveals that in the context of the SARS-CoV-2 pandemic, moving education to the online environment as the only option to continue the teaching activity, found both teachers and parents unprepared.

Carrying out emergency remote education was a great challenge for everyone: teachers, students, parents, since the traditional way of carrying out the educational act was replaced in a very short period with remote education. Thus, without prior training, each educational partner has experienced major transformations of its role, encountering difficulties that have affected the quality of the instructive-educational process.

The results of the research identified a series of difficulties faced by the participants, such as: lack of technological equipment, low digital skills, difficulties in organizing and supporting the learning activity. An essential aspect regarding the remote teaching activity with kindergarten children was affected also by the reluctance of parents, who, at least at first, did not agree with the use of the computer and the internet for a long period of time giving into consideration the young age of their children.

Although it has been tried and even found solutions for the continuity of the teaching activity, in most cases, it cannot be remembered, one of the fundamental problems of the

Romanian education system, amplified by the pandemic, namely the inequality of chances to education of children, especially for those in rural areas.

Moreover, in alinement with Martín-Sánchez (2022) research it is evident that beyond making it difficult to train certain skills among pre-schoolers or to carry out a practice-based assessment, one of the major disadvantages of this form of education is that it is impersonal, unlike the classical form, where children, in the group room, interact and establish relationships, developing their social life.

Coming unexpectedly, as a necessity, the remote education has brought besides disadvantages a series of opportunities to capitalize on, opening new horizons for us to achieve the educational act. So, despite the various obstacles encountered, technology has supported the learning process, making possible the continuity of education in a context where the primary concern of mankind has shifted towards health issues.

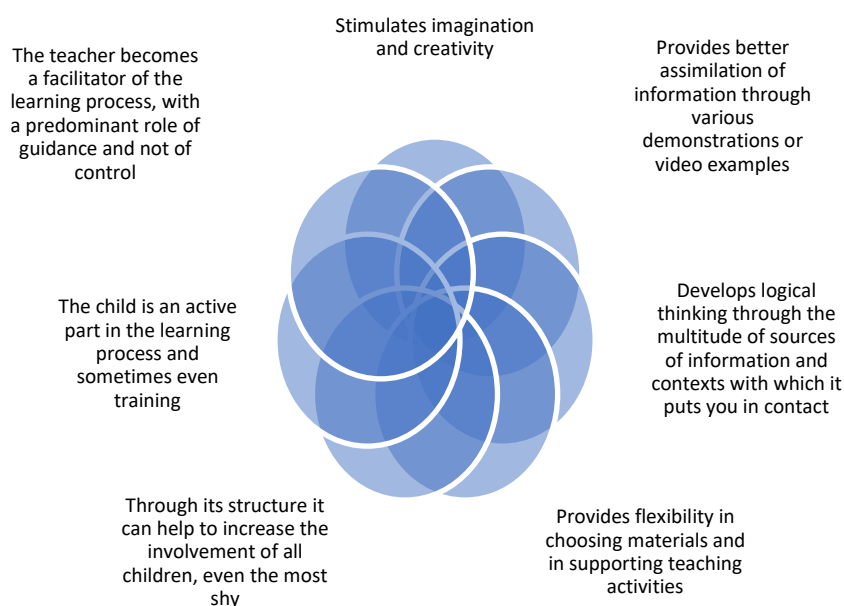Among the advantages of online learning are:

Figure 9 The advantages of online learning

Even if the effectiveness of online learning among pre-schoolers is not the same as that achieved in the case of the higher levels of education, we believe that a rethinking of the entire national education system, in the context of digital evolution, can be a good way of delivering learning situations that can stimulate and develop children's logical thinking.

The experiential situation that the pandemic situation had arose could be seen as a landmark for envisioning how to achieve a symbiosis between the classical and the modern education system. This finding goes hand in hand with Jalongo (2021) research that states that the community needs to show –by a strong financial commitment and by providing updated policies and relevant practices—that children education is a global priority. Moreover, remote education has to be seen as an alternative to go on with the

teaching activity in situations similar to the pandemic that may arise in the future (Fogarty, 2020).

Several challenges identified in this study are discussed in other researches and put together can help provide a clearer picture of the situation by mapping lessons learned. Firstly, related to the need to provision by the Ministry of Education of certain courses in which teachers participate in order to acquire digital skills necessary to carry out the online activity allowing them to use new teaching methods in order to respond to the needs that the new kids generation have (Vulpe & Pribac, 2021). Secondly, another urgent need is related to the technological devices that each institution should possess and them pass it on to each pupil/family for carrying out the online activity (Ionescu et al, 2020). Also, the need to adapt the curriculum was put to an emphasis, teachers agreeing that have substantially changed the curriculum, not only to the extent that they worked virtually, "in front of the camera", but by also editing video materials, searching for new and engaging apps to work with pupils (Bilbokaitė-Skiauterienė & Bilbokaitė, 2021). Nevertheless, teachers see the training of parents in using online content related to education and safety measurements in online as a high necessity. This idees converges other research ideas that states the need for training programs for parents that will enable them to be better prepared to respond to their kids need in terms of technology usage (Guerrero& Forment, 2019; Graf et al., 2014)

In order to close the gap that exists between the level of education and the new generation of kids that are born digitally native the Romanian educational system should incorporate innovative teaching methods. Consequently, it can be claimed that the epidemic was seen and still can be seen as a challenge for educational institutions, since both students and also parents and instructors have already felt the effects.

It is hoped that effects that this pandemic has had upon the education system will help shaping a more sustainable development of the education system, allowing students and instructors to advance their knowledge, abilities, and skills in order to enhance society's future through excellent education.

All in all, the Covid-19 pandemic, which primarily affects people who are most vulnerable and originate from underdeveloped or underprivileged situations, shows problematic elements of education systems around the world. The educational community, on the other hand, asserts that it has adjusted in a positive way.

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