



# THE ETHICAL ASPECTS OF ICT USAGE IN INTERCOMMUNION WITH PARENTS OF PRESCHOOLERS WITH SPECIAL EDUCATIONAL NEEDS

Olena Denysiuk<sup>1</sup>, Liubov Lokhvytska<sup>2</sup>, Nataliia Martovytska<sup>3</sup>,  
& Zhanna Petrochko<sup>4</sup>

<sup>1,4</sup> Borys Grinchenko Kyiv University,

18/2 Bulvarno-Kudriavska str., Kyiv, 04053, Ukraine

<sup>2</sup> Hryhorii Skovoroda University in Pereiaslav, 30,  
Sukhomlynskyi str., Pereiaslav, 08401, Ukraine

<sup>3</sup> Bohdan Khmelnytsky National University of Cherkasy, 81,  
Shevchenko blvd., Cherkasy, 18000, Ukraine

<sup>1</sup> o.denysiuk@kubg.edu.ua, ORCID 0000-0001-5108-8370

<sup>2</sup> lokhvytska@gmail.com, ORCID 0000-0001-6852-5477

<sup>3</sup> nv.martovytska@gmail.com, ORCID 0000-0002-7258-3458

<sup>4</sup> z.petrochko@kubg.edu.ua, ORCID 0000-0002-4413-1243

**Abstract:** *In today's world, the use of information and communication technologies (ICTs) has become much more relevant because of the COVID-19 pandemic. The consequences of quarantine restrictions have sharpened the problems connected with the education and upbringing of preschoolers with special educational needs (SEN), who needed to establish an effective intercommunion of parents with specialists through ICT. The authors' aim was to clarify the theoretical basis of the research problem and to determine the ethical aspects of the ICT usage in communication with parents of preschoolers with SEN. Based on the methods of analysis, synthesis and generalization, the authors presented a theoretical review of the feasibility of ICT in the process of working with preschoolers, outlined the specifics for children with SEN, and established the role of ICT in cooperation of teachers with parents of preschoolers in preschool educational institutions (PEI). Empirical material was collected using the method of written survey (questionnaire) of parents. The research group consisted of parents of preschoolers with SEN (n=124) from four PEIs in Ukraine. The results testified to the existing problems and difficulties that parents face in the process of communication through ICT. The key and additional ethical aspects of the use of ICT in communication between teachers and parents are identified, which not only raises knowledge about information content, but also produces*

*a friendly attitude between all participants, aimed at compliance with socio-ethical norms of behaviour, respect and mutual trust.*

**Keywords:** information and communication technologies (ICT), preschool children with special educational needs, parents of preschoolers with special educational needs, communication, ethical aspects of communication, distance learning.

## INTRODUCTION

According to the amended Law of Ukraine “On Education” (2017), inclusive education is defined as a system of educational services guaranteed by the state, based on the principles of non-discrimination, consideration of human diversity, effective involvement and inclusion of all participants of the educational process. (Zakon Ukrainy “Pro Osvitu”, 2017: 13).

Salamanca Declaration and Framework for Action on the Education of Persons with Special Educational Needs (hereinafter referred to as SEN) state that the education of children with SEN is a common task of parents and professionals (Salamanska deklaratsiia ta ramky dii shchodo osvity osib z osoblyvymy osvitnimy potrebamy, 1994). Families and parents can be improved by providing the necessary information through ICT. Both parents and professionals (teachers, educators, psychologists) may need support and encouragement in terms of learning to co-work as equal partners. According to the Ministry of Education and Science of Ukraine in 2020/2021 preschoolers with SEN were provided with 4369 special groups organised in 1630 preschool educational institutions, where 61668 children get a preschool education and 3796 inclusive groups organised in 2242 institutions where 6849 children are educated. All inclusive resource centres (IRCs) are digitalized, the information and educational system of the AS “IRC” and the website are functioning to provide convenient access to services, which is especially relevant in the modern realities of quarantine. There was created a mobile application on IOS and Android platforms, which improve access to services, the quality of children’s and adults’ life with disabilities, promote effective communication in society (<https://mon.gov.ua/ua/osvita/inklyuzivne-navchannya/statistichni-dani>).

Informatization of the education sector in Ukraine has certain achievements. ICT (information and communication technologies) are increasingly used to improve the organization of the educational process. The COVID-19 pandemic has changed the perception of education and the format of its provision. Categories of children with SEN were particularly vulnerable. Therefore, it is important to develop parents’ digital competence and competence of safe behaviour on the Internet, establishing trusting and open communication with teachers and professionals on the Internet. Following ethical requirements in the communication of teachers with parents in the virtual space will help to establish partnerships, stabilize the parents’ emotional state, get adequate feedback, increase the effectiveness of assistance.

The *purpose of the article* is to find out the theoretical basis of the research problem and to determine the ethical aspects of the use of ICT in intercommunion with parents of preschoolers with special educational needs. The *structure* of the study

design provides a justification for the ICT expediency in the process of working with preschoolers, review of the specificity of work with children with SEN regarding the use of ICT as a means of intercommunion between teachers and parents of preschool students; description of methodological tools and research results; analysis of the survey conducted among parents and the necessity to take into account ethical aspects in the process of intercommunion of teachers with parents with the help of ICT.

## 1. THEORETICAL BACKGROUND

### 1.1. Benefits of ICT usage in the work with preschoolers

Various aspects of the ICT usage in the preschool educational process are studied in many fields of science (by pedagogues, psychologists, physicians, etc.). Explicating information and communication technologies as a set of technical means and methods of information data transformation to gain new knowledge, abilities and skills (Arnott, Grogan, & Duncan, 2016; Chaudron, Di Gioia, Gemo et al., 2017; Masoumi, 2021), scientists consider it necessary to use them in a dosed and content-based way in working with preschool children. The role of ICT in the preschool educational organization process lies in the fact that:

- there is an optimization of the process of development, education and preschoolers' upbringing, which contributes to the implementation of all educational tasks, for example, – the formation of children's health competence (Andriushchenko, Lokhvytska, Rudenko et al., 2021); development of children's creative skills in play activities (Arnott, Grogan, & Duncan, 2016) etc.;
- children can communicate freely and comfortably with their peers (emotionally, verbally, symbolically) (Chaudron, Di Gioia, Gemo et al., 2017; Rahiem, 2021);
- thanks to the vivid clarity of ICT, children's attention is activated, their need for emotionally rich information is met, which affects the development of all cognitive mental processes and the formation of personality in general (Masoumi, 2021);
- a diverse and high-quality developmental play/digital environment is created, which is favourable for the personal growth of the child, which "would provide the child a full security and educational values" (Pulak, 2018: 221).

At the same time, as L. Crescenzi-Lanna and M. Grané-Oró (2016) assert, the ICT usage in preschool education should not become an end in itself. The psychological characteristics of a preschool child are primarily determined in situations of interaction with adults (parents and teachers) and depend on their psychological and pedagogical influence, which determine his/her mental development (Crescenzi-Lanna & Grané-Oró, 2016). The use of ICT in the work with preschoolers ensures their integration into society, activates the process of an individual's cognition of the world around, promotes the mastery of technical skills when working with gadgets. However, "choosing the most appropriate educational ones for children is difficult and problematic for both teachers and educators" (Papadakis & Kalogiannakis, 2017: 256). A successful use of ICT in the educational process of preschool education depends on the state of ICT competence formation of teachers, who act as intermediaries be-

tween the demands of parents and society's demands for the growth of the younger generation (Veličković & Stošić, 2016). This imposes on the teacher compliance with a number of requirements:

- awareness of ways to use ICT in preschool education to improve its quality (Roszak & Kołodziejczak, 2017);
- providing positive motivation for the use of ICT in professional activities and the desire for their own professional self-development through ICT (Kara & Cagiltay, 2017);
- awareness of the many-sided spectrum of ICT and the knowledge formation about modern information and communication technologies (Otterborn, Schönborn, & Hultén, 2019);
- mastering modern information and communication technologies, gaining experience in the ICT usage with all subjects of preschool education (children and parents) (L. Chen, T.-L. Chen, Lin, & Liu, 2018).

The success of ICT will largely depend on the readiness of preschoolers' parents, their ability to use the Internet to enrich their knowledge and skills on the upbringing and development of preschoolers, self-education, focus on partnership with teachers and other professionals (Nordkvelle & Olson, 2005). Thus, the ICT usage in preschool education involves the implementation of the educational process with preschoolers and the establishment of effective communication and partnership with their parents. Thanks to various means of ICT, teachers of preschool educational institutions are able to diversify the forms of support for the educational process, improve the quality of cooperation with parents to improve the development, education and training of their children.

## **1.2. Peculiarities of ICT usage in work with children with special educational needs**

The issue of support for inclusive education is relevant in today's environment. Ukrainian scientists Skrypnyk, Martynchuk, Klopota et al. (2020) considered the peculiarities of supporting children with special educational needs in educational institutions, the importance of interaction between teachers, parents and specialists. Analysis of research on the creation of an inclusive environment in preschool education shows that the ICT usage expands opportunities for socialization of children with SEN, improves the quality of education and is a means of supporting inclusive education (Geta, Zaika, Kovalenko et al., 2018; Epitropova, Petrov, Stoyanov et al., 2019). Thus, Zaika and Chernov (2018) investigated the peculiarities of the use of information and communication technologies in preschool education in the education and upbringing of children with special educational needs from the standpoint of compensating for physical disabilities with the help of the latest tools. The authors emphasize the importance of ICT in overcoming communication barriers (if disability is related to sensory and perceptual disorders); optimization of the process of learning and education (for disorders of the autism spectrum it is more comfortable for the child to communicate with an adult through technical means); organization of distance learning (possibility to teach distantly and educate a child, if for various reasons he/she cannot attend preschool); clarity in the presentation of educational

material (illustration of the material with the help of a video series, interactive white-board), etc. (Zaika & Chernov, 2018: 63).

Scholars studied possibilities of using ICT in work with preschoolers within an inclusive group. The advantages of using this technology in inclusive education are outlined, the types are characterized, the criteria for selection of high-quality multimedia resources are determined. Scientists pay attention to software development taking into account the individual interests, abilities, strong and weak sides of a child with SEN (Epitropova, Petrov, Stoyanov et al., 2019). The use of ICT helps to meet the specific needs of children with different abilities. Teachers and parents are attracted primarily by the flexibility in their use, their functionality, the ability to be creative in the education and upbringing of children with SEN, to interest children, to help them be successful. In the conditions of quarantine restrictions we identify such key principles of distance learning of children with SEN as: the principle of interactivity; differentiation; individual approach; flexibility. Among the features of distance learning and education of this category of children is the transition from a direct model of learning to coaching; synchronous and asynchronous learning; use of available visual material; interactive activities; sustainability of education; creating a safe environment and taking into account the health of the child with SEN (Bondarenko, 2018: 41). Communication with parents of preschoolers with special educational needs through ICT is especially important. The success of the child's integration into the educational process, adaptation and socialization in the peer group will largely depend on parents. For such parents, ICTs become a means of communication with an educator, practical psychologist, social worker, and other specialists, who provide comprehensive socio-pedagogical and socio-psychological support to the family, minimizing difficulties in learning, development and care of a child with disabilities. Therefore, while using ICT in the process of education and training of preschoolers with special educational needs, it is important to take into account the age of the child, his/her psycho-physiological capabilities, interests and abilities. The situation of the use of ICT during the inclusive process in the PEI should include an adult as a mediator between the child and the technical means. In terms of distance learning, parents should become partners of teachers, other professionals to act effectively in the best interests of the child.

### **1.3. ICT as a means of intercommunion with teachers and preschoolers' parents**

The use of ICT helps to expand the boundaries of intercommunion with teachers and parents raising a child with disabilities, allows the latter to be active participants in the educational process.

Having analyzed scientific sources on the research topic, it was found that the ICT usage in cooperation with teachers and students' families allows a wide range of information space; combining individual and group forms of work, building individual educational trajectories; creating shared network content; establishing distant forms of communication of subjects of educational interaction; forming ICT competence as one of the essential competences (Nordkvelle & Olson, 2005; Papadakis & Kalojiannakis, 2017; Pulak, 2018). As Y. Nordkvelle & J. Olson (2005) consider, due to

organized effective communication, the relationship between the participants of the educational process is established, which helps to carry out psychological education of parents and the sequence of their educational tasks, jointly determine the time for distance education of preschoolers (directly via Skype, watching video presentations) (Nordkvelle & Olson, 2005). Establishing close intercommunion with teachers and parents contributes to the choice of appropriate programs or the creation of special ones for the development of the child at home (Crescenzi-Lanna & Grané-Oró, 2016). In the course of interaction between these subjects of the educational process by advising parents as customers of educational services, their education is carried out on the feasibility of using different ICTs with children at home (Pulak, 2018).

Noteworthy is the question: how to improve the communication process using ICT as a tool? This research perspective was actively studied by scientists in the context of training teachers for professional activities (Boiko, Morze, & Varchenko-Trotsenko, 2020; Marcial, 2017). In particular, the importance of following the ethical principles of interpersonal communication in the ICT usage was emphasized. Researcher Marcial (2017) identified such principles as integrity, awareness of the consequences of joint actions, conscious attitude to the task performance, appropriate use (in accordance with the rules and regulations) of the computer for games and activities on the Internet, trying to “minimize the effects of the digital divide by providing access to digital materials”, etc. (Marcial, 2017: 100). Boiko, Morze, and Varchenko-Trotsenko set out criteria for the effectiveness of communication and cooperation between teachers and students with classmates during distance learning (Boiko, Morze, & Varchenko-Trotsenko, 2020). It is proved that the ethics of interaction in the online format performs a whole system of functions: transfer by carriers of norms and requirements to communication partners, perception of the environment, education and socialization of communication participants, formation of their moral consciousness (ibid). In addition, communication and cooperation in distance learning is a complex multifunctional phenomenon that involves taking into account the personal factors of its participants. The results of this study form the basis for outlining the idea of research: to determine the ethical aspects of the use of ICT communication with parents of preschoolers with special educational needs.

In general, on the basis of the theoretical study of the scientific source base of the initiated research, we can make the following generalizations:

- the use of ICT in the activities of preschool education contributes to ensuring the quality of the educational process;
- ICTs are actively implemented for the purpose of education, upbringing and development of preschool children with special educational needs;
- requires the increase of ICT competence formation in teachers to use ICT between all subjects, in particular, as a means of communication with parents of students, which contributes to the establishment of partnerships;
- the issue of defining ethical aspects of ICT involvement in communication between teachers and parents is urgent, which not only replenishes knowledge about information content, but also produces a friendly attitude, following moral values and adherence to socio-ethical domains of behaviour.



## 2. RESEARCH METHODS

The following theoretical methods were used to conduct the study: analysis, synthesis, generalization, comparison, as well as empirical methods: questionnaires, graphical methods of compilation and data processing.

Collected empirical data was based on the results of a survey of parents whose children have SEN and attend preschool educational institution (“Child Development Center «I + family»”) (Kyiv), “Swallow”, “Satellite”, “Dolphin” (Cherkasy), “Lyubavonka” (Pereyaslav) Ukraine) during the pandemic September 2020 – April 2021. The survey involved parents of children with special educational needs (n=124), of whom 83.9% (n=104) – are women and 16.1% (n=20) are men. This suggests that in most cases, the child’s upbringing is carried out by the mother.

A questionnaire containing 12 questions of different types (open, closed, optional, statements, etc.) was developed for the survey. The questionnaire was made using Google Forms. The questions of the questionnaire were aimed at identifying the peculiarities of communication between parents of children with special educational needs and finding out the problems and difficulties they face in the process of ICT usage. Parents were interviewed by completing online questionnaires. The content of the questions is given in the results of the investigation.

## 3. RESEARCH RESULTS

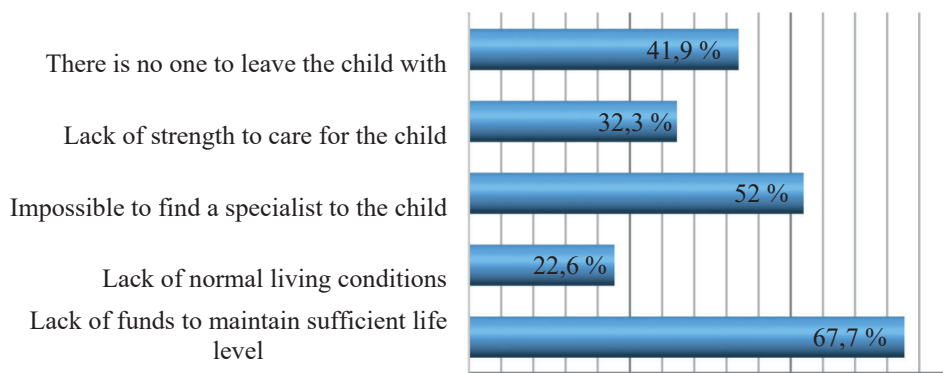
### 3.1. Analysis of the survey results of parents of children with SEN

According to the results of the survey of parents of children with special educational needs, it was found that parents have different problems in education, development and care: medical (rehabilitation), psychological, pedagogical, legal, social and material. Raising a child with disability certainly affects the life of the family. Thus, despite the fact that 87.1% of respondents (n=102) are under the age of 40, 41.9% (n=52) of them do not work and have to take care of a child. Accordingly, it affects the financial soundness of the family, among the existing problems, the majority of respondents 67.7% (n=84) mentioned the lack of finances to maintain a sufficient standard of living, the lack of normal living conditions 22.6% (n=28).

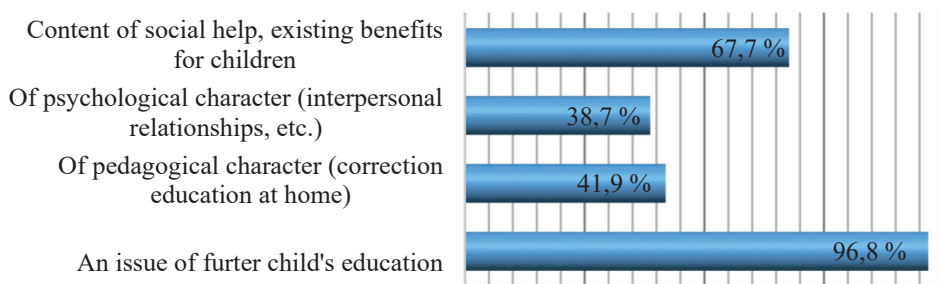
Financial problems are increased by problems of emotional burnout, psychological and physical nature. In particular, 32.3% (n=40) indicated a lack of childcare efforts; 52% (n=64) – for feelings of inadequate support, assistance, lack of a specialist; 41.9% (n=52) of the surveyed parents asserted that there was no one to leave the child with (Figure 1).

The majority of parents – 58.1% (n=72) often experience stress, tension due to health problems of the child. A significant number – 80.6% (n=100) need specialist advice, socio-pedagogical and psychological support. Ethical issues of interaction with preschool children, strengthening attachment with the child, calm and effective communication, formation of spiritual and moral qualities are important for parents. Parents constantly need additional information on the care, upbringing and education of the child. It was found out that almost half of the surveyed parents were not satisfied with the level of their own knowledge on child care and upbringing – 45.2%

(n=56). Only 12.9% of those were satisfied (n=16). According to the results of the survey, most parents raising a child with special educational needs are concerned about the following issues: further education of the child – 96.8% (n=120); specific content and volume of state social assistance, benefits, and payments – 67.7% (n=84). However, it does not diminish the importance of conducting correction classes with the child at home. This was evidenced by 41.9% (n=52) of respondents (see Figure 2).



**Figure 1. Respondents’ answers to the question: “What problematic issues (problems) are currently relevant for you?”**



**Figure 2. Respondents’ answers to the question: “What kind of information do you lack and would like to get?”**

A significant number of respondents – 38.7% (n=48) indicated the urgency of issues of interpersonal relationships in the family, interaction with the child. Issues of interpersonal relationships become especially important, taking into account the fact that outside the educational institution parents communicate mainly with relatives – 87.1% (n=108) and with child’s friends on the playground, who also have SEN – 22.6% (n=28).

To the question: “What do you think is the most difficult in organizing a child’s life?” respondents answered: “Lack of support from society”, “Unethical comments and recommendations from relatives and friends, neighbours”, “Social adaptation and maximum self-care”, “Organization of communication between children and peers”, “Lack of knowledge on how to develop a child psychologically and physically; how to communicate effectively with specialists, teachers”, “Everything is difficult”.



In general, almost half of the surveyed parents – 45.2% (n=56) are assisted in the upbringing and development of the child by other family members. However, it should be noted that parents are generally informed about the structures that can provide such assistance. Among the mentioned preschool education institutions, social service institutions (centres of social services), public organizations. The majority of respondents – 67.7% (n=84) know about the functioning of private correctional and developmental psychological centres.

However, unfortunately, respondents do not appreciate the quality of social services, including counselling on psychological and ethical issues, in the centres of social services. Only 38.7% (n=48) assess the work of these institutions as “satisfactory”; the majority – 54.8% (n=68) consider it to be “unsatisfactory”. Especially parents feel the necessity for specialist advice on the child’s condition and behaviour during quarantine. Estimates of services provided by the public sector are slightly higher. Thus, to the question: “What is your assessment of the activities of non-governmental (public) organizations that work with children with disabilities?” we received the following answers: “satisfactory” – 48.3% (n=60); “Difficult to answer” – 45.2% (n=56); “Unsatisfactory” – 6.5% (n=8).

To the question: “What help (information) would you like to get within the preschool institution that your child is currently attending?” parents answered: “Information about developmental classes at home with the child in quarantine”, “How to organize free time for the child”, “Tips for correctional work and communication with the child”, “How to teach a child independence (dress, eat, etc.)”, “Correctional classes with a child at home, at least online”, “Psychological nature, entry into society, the content of social assistance”. Parents were concerned about the uncertainty of the situation with quarantine restrictions, emphasizing that due to the lack of regular classes with children, they lost previously acquired skills.

It was found out that respondents get information on child care and development mainly from the following sources: “advice from other parents raising children with SEN” – 77.4% (n=96); “Consultations of specialists in special institutions (polyclinics, PEI, etc.)” – 74.2% (n=92); “Special literature on development and education” – 45.2% (n=56). Among the most acceptable and effective ways to obtain the necessary information, respondents noted the following: “Online consultation”, “Consultations and joint training programs”, “Internet resource”, “Mobile communication, online communication (social networks, messengers, Skype, closed groups on Facebook)”, “E-mail or Viber, meetings in the format of conferences-lectures”, “E-mail”, “Correspondence on the Internet, conversation on a smartphone”.

It was found out that in preschool institutions, the parents, whose pupils were involved in the survey, the communication process involves a different range of activities aimed at providing socio-pedagogical support, various types of assistance and support in general. Thus, all respondents could name the main forms of effective communication with parents using ICT, in particular: the official website of the educational institution on the Internet; page in social networks; conducting thematic online parent meetings, consultations, webinars using materials developed in Microsoft PowerPoint; an open day and an excursion to the institution in the form of a promotional video on the official website and social media pages of the institution;

distance lessons with children via Skype, etc. Parents paid attention not only to the content aspect of the interaction, but also noted the importance of a friendly attitude on the part of teachers and specialists, understanding of the situation, tact. Among the problems and difficulties that parents have in the process of communication through ICT were: fear of a breach of confidentiality, lack of sufficient training to use ICT, the need to spend a lot of time participating in activities, classes for children, forced teacher's long absence (illness, etc.) to which the child gets accustomed; inaccessibility of the Internet and modern digital devices, etc.

Thus, in the context of ICT development and quarantine restrictions, there is an urgent need for active use of information and communication technologies in an inclusive educational environment in general and communication with parents of children with special educational needs in particular. For its successful implementation, it is important to determine the ethical aspects of communication with parents of children with SEN.

### **3.2. Peculiarities of ethical aspects of ICT usage in intercommunion of teachers and parents**

The analysis of the survey results demonstrated that parents of children with special educational needs often deny online learning, do not believe in the child's capabilities, do not possess sufficient knowledge of ICT, give up and do not want to study more. In quarantine, all these states get worse, that's why the parents' support, establishing effective communication with them is necessary. The success of interaction with parents will depend on both the information quality and educational environment and the ability to communicate in cyberspace. There are common ethical requirements that are important for all participants of the process. There are the following components: the culture of presenting information; culture of perception and use of information; culture of using new information technologies.

When thinking about network etiquette, it is important to remember that on the Internet, the spiritual and moral, including ethical, rules of behaviour in communication with parents raising children with SEN are the same as in real life. Politeness, tact, kindness, respect, tolerance and other spiritual and moral qualities of a person should be manifested in the Internet space.

To ensure effective intercommunion with parents in the network in compliance with ethical standards, one should think about how to organize communication with them in the best way. It can be done through various forms, namely: video conferencing, forum, chat, blog, e-questionnaire, online lecture, webinar, online training, online marathon, etc.

In particular, using the chat, parents can get information that they are interested in, or take part in the discussion. It gives opportunities to learn from the others' mistakes, to observe, to comment. For parents of children with SEN, it is recommended to use the forum more actively. It's a kind of communication on the Internet, which involves creating topics for discussion by parents, the ability to view all the replies, moderating the discussion process. At the same time, it is not advisable to choose a single form of online communication. They can be used partly or all depending on the goal, stated by the teacher. For example: groups in Viber (Telegram, WhatsApp)

with text chat promote fast communication with parents. A closed group on Facebook is valuable for this category of parents, it can be found in search results, but the content is available only to group members. In such a group, participants feel more protected, so they are free to express their opinions, more open to communication. Online training sessions and online marathons can be especially interesting for parents. In particular, online marathon – a series of webinars / video lectures and tasks using various platforms and social networks; is competitive in nature, limited in time. At the stage of preparation for any online lesson, it is important to analyse the possibilities of different platforms and services that should be used by the teacher. Their choice will depend on the technical abilities and goals of the online lesson, the level of parents' technical training (McDevitt, 2021).

Effective communication on the Internet with parents of children with SEN is facilitated by the ability to ask open-ended questions. It will shape their ability to adapt easily, develop mobility and independence. It is advisable to ask open-ended questions: at the beginning of a lesson or conversation; to move on to another topic of conversation; to encourage reflection; when it is necessary to find out the requests and interests of group members. In the context of the presented study, emphasis was placed on open-ended questions that make parents think, analyse their actions, and contribute to the appearance of new interesting ideas for interaction with the child with SEN. Such questions will allow parents to speak freely about their feelings, anxieties and fears, which undoubtedly occur when caring for a child with a disability. Basic questions are recommended to be displayed on the screen, one can highlight keywords. At the same time, it is not always advisable to use open-ended questions within a limited time. They can also “scare” parents who are not used to online communication. In addition, communication with parents shouldn't turn into their interrogation or unreasonable questioning.

It is important to conduct systematic parents' online surveys. The need for the survey arises in the following cases: collection of expectations; collecting feedback; evaluation of educational material. Virtual boards will be useful for surveys and other types of work. It is a network social resource designed to organize joint work to create and edit images and documents, real-time communication. The virtual board allows to visualize the material, it is a direct carrier of educational information, allows to work in real time with several parents, provides interaction of a teacher with group members and allows to get quick feedback (Proshkin, 2017).

Developing recommendations for establishing effective communication with parents of children with SEN, it is important for parents to maintain a stable emotional state. Only in a calm state will they be able to support the child adequately. In addition, parents should be ready to act as members of an online team, to become partners of teachers in the process of child's education and upbringing.

To establish a partnership between the teacher and the child's parents with SEN, it is necessary to encourage parents, explain the importance of classes with the child online; offer a dosed number of tasks for each day with mandatory feedback; make a questionnaire for parents about the difficulties they faced during quarantine, and work on it as a team; record a learning monologue for the child and send it to the parents (it will help them to organize a learning environment for the child, motivate

them to perform tasks responsibly); to build reliable relations with parents gradually on the basis of benevolence, to develop their trust and at the same time independence. As a rule, it is advisable to provide parents regularly with information which their child has learned, what he/she has succeeded, and what still necessary to be worked on. This information will help you understand how to help your child to become more successful in the group. It is necessary to take photos of successful completion of the task, to send support and encouragement messages to parents. Detail is important for parents of children with SEN. So, just sending an e-mail or other emoticon is not enough. Phrases such as “everything is fine” tend to lead to misunderstandings, inaccuracies and difficulties. At the same time, it is important to remember that it is not advisable to wait for parents to ask specialists for advice. It is recommended to provide information to parents even in the absence of a request, reminding them at every opportunity of the importance of maintaining mutual communication on the basis of network etiquette.

According to the results of this work, the following key and additional ethical aspects in the intercommunion of teachers with parents of preschoolers with SEN are outlined. Key ethical aspects include:

- follow integrity, be aware of the consequences of joint actions, treat the performance of tasks in good faith, use in accordance with the rules and regulations a computer for games and activities on the Internet, “minimize the effects of the digital device by providing access to digital materials”, etc. (Marcial, 2017: 100);
- not to disclose information provided about a child with SEN by other parents, to observe confidentiality, not to publish information from private letters without the consent of their senders;
- take into account the individual characteristics of parents; stages of their emotional experiences, from the time when they learned about the problems of child development; understand and adequately respond to possible aggressive manifestations;
- defend their own point of view on the upbringing, development and care of a child with SEN, but do not offend others if their opinion, position differs; always preserve one’s own dignity and respect the dignity of the interlocutor; not to focus on inaccurate or unfortunate questions of other parents about the child with SEN; not to get annoyed if the interlocutor does not understand the explanation; avoid incorrect remarks, comments.
- Additional ethical aspects include:
  - use correct terminology, avoid complex concepts, professional slang;
  - in the process of communication to value their time and the time of interlocutors; strictly follow the topic of discussion in the group; use special chats only for professionally oriented communication, do not write messages that do not relate to issues of education, development and care of a child with SEN;
  - if the group members are interested in a special (narrow) topic related to the rehabilitation of a child with SEN, it is better to create a separate community.

## CONCLUSIONS AND FURTHER RESEARCH PERSPECTIVES

Based on the theoretical analysis of the research problem and the results of empirical research, it was found that it is important to establish reliable and close relationships with parents in order to involve preschoolers with SEN in the educational process using ICT effectively. This issue became topical during the COVID-19 pandemic. The use of ICT in cooperation with teachers and other professionals with preschoolers' parents requires mandatory adherence to the culture of presenting information, perception and use of information, the use of new information technologies. Key and additional ethical aspects of ICT usage in intercommunion with parents of preschoolers with SEN are highlighted, including: observance of confidentiality, integrity, awareness of consequences of joint actions, use of proper terminology, consideration of parents' individual features, observance of certain time limits in the process of interaction; preserving one's own dignity and the dignity of the interlocutor, maintaining a stable emotional state of parents. The most effective forms of online communication with parents were groups in Viber (Telegram, WhatsApp), a closed group on Facebook, online training sessions and online marathons. It is established that the use of open-ended questions in the process of interaction encourages parents to think, develops mobility and independence, allows them to speak freely about feelings and anxieties.

*Further study* requires the problem of training professionals to establish effective communication with parents of preschoolers with SEN within a changing environment, the algorithm of providing socio-psychological support to parents using ICT in distance education.

## REFERENCES

- Andriushchenko, T.K., Lokhvytska, L.V., Rudenko, Y.A., & Dudnyk, N.A. (2021). Vykorystannia IKT dlia formuvannia zdoroviazberezhualnoi kompetentnosti starshykh doshkilnykiv [Use of ICT for the Formation of senior preschoolers' Health-keeping Competence]. *Information Technologies and Learning Tools*, 81(1), 15–35. <https://doi.org/10.33407/itlt.v81i1.3795>.
- Arnott, L., Grogan, D., & Duncan, P. (2016). Lessons from using iPads to understand young children's creativity. *Contemporary Issues in Early Childhood*, 17(2), 157–173. <https://doi.org/10.1177/1463949116633347>.
- Boiko M., Morze, N., & Varchenko-Trotsenko, L. (2020). Communication and cooperation in distance learning. In E. Smyrnova-Trybulska (Ed.). *Innovative Educational Technologies, Tools and Methods for E-learning, E-learning Series*. Vol. 12 (2020). Katowice–Cieszyn: STUDIO NOA for University of Silesia. (pp. 50–64). ISSN 2451-3644 (print edition), ISSN 2451-3652 (digital edition), ISBN 978-83-66055-19-3, <https://doi.org/10.34916/el.2020.12.05>.
- Bondarenko, T.V. (2018). Using information and communication technologies for providing accessibility and development of inclusive education. *Information Technologies and Learning Tools*, 67(5), 31–43. <https://doi.org/10.33407/itlt.v67i5.2241>.

- Chaudron, S., Di Gioia, R., Gemo, M., Holloway, D., Marsh, J., Mascheroni, G. et al. (2017). *Kaleidoscope on the Internet of Toys – Safety, security, privacy and societal insights*. Luxembourg: Publications Office of the European Union. Retrieved from <https://www.researchgate.net/publication/329772573>, ISBN 978-92-79-64949-3 (online), 978-92-79-64948-6 (print), 978-92-79-74190-6 (ePub), <https://doi.org/10.2788/05383> (online), 10.2788/342314 (print), 10.2788/996863 (ePub).
- Chen, L., Chen, T.-L., Lin, C.-J., & Liu, H.-K. (2018). Preschool Teachers' Perception of the Application of Information Communication Technology (ICT) in Taiwan. *Sustainability*, 11(1), 114. <https://doi.org/10.3390/su11010114>.
- Crescenzi-Lanna, L. & Grané-Oró, M. (2016). An analysis of the interaction design of the best educational apps for children aged zero to eight. *Comunicar*, 24(46), 77–85. <https://doi.org/10.3916/C46-2016-08>.
- Epitropova, A., Petrov, A., Stoyanov, S., & Stoyanova-Doycheva, A. (2019). The Project “Inclusive Classroom-Play and Learn-Conception, Design and Soft Ware Architecture”. In E. Smyrnova-Trybulska (Ed.), *E-learning and STEM Education. E-learning Series*. Vol. 11 (2019). Katowice–Cieszyn: STUDIO NOA for University of Silesia (pp. 659–669). ISSN: 2451-3644 (print edition) ISSN 2451-3652 (digital edition) ISBN 978-83-66055-12-4, <https://doi.org/10.34916/el.2019.11.41>.
- Heta, A., Zaika, V., Kovalenko V., et al. (2018). *Suchasni zasoby IKT pidtrymky inkluzivnoho navchannia* [Modern ICT tools to support inclusive education]. Yu. H. Nosenko (ed.). Poltava: PUET. ISBN 978-966-184-318-8.
- Kara, N. & Cagiltay, K. (2017). In-service Preschool Teachers' Thoughts about Technology and Technology Use in Early Educational Settings. *Contemporary educational technology*, 8(2), 119–141. <https://doi.org/10.30935/cedtech/6191>.
- Marcial, D.E. (2017). ICT Social and Ethical Competency among Teacher Educators in the Philippines. *Information Technologies and Learning Tools*, 57(1), 96–103. <https://doi.org/10.33407/itlt.v57i1.1533>.
- Masoumi, D. (2021). Situating ICT in early childhood teacher education. *Education and Information Technologies*, 26, 3009–3026. <https://doi.org/10.1007/s10639-020-10399-7>.
- McDevitt, S.E. (2021). While quarantined: An online parent education and training model for families of children with autism in China. *Research in Developmental Disabilities*, 109. Art. 103851. <https://doi.org/10.1016/J.RIDD.2020.103851>.
- Nordkvelle, Y.T. & Olson, J. (2005). Visions for ICT, Ethics and the Practice of Teachers. *Education and Information Technologies*, 10(1), 21–32. <https://doi.org/10.1007/s10639-005-6745-6>.
- Otterborn, A., Schönborn, K., & Hultén, M. (2019). Surveying preschool teachers' use of digital tablets: general and technology education related findings. *International Journal of Technology and Design Education*, 29, 717–737. <https://doi.org/10.1007/s10798-018-9469-9>.
- Papadakis, S.J. & Kalogiannakis, M. (2017). Mobile educational applications for children: what educators and parents need to know. *International Journal of Mobile Learning and Organisation*, 11(3), 256–277. <https://doi.org/10.1504/IJMLO.2017.10003925>.



- Proshkin, V.V. (2017). Osvitni veb-resursy v profesiinii pidhotovtsi maibutnikh uchyteliv [Educational Web Resources in Prospective Teachers' Professional Training]. *Educational discourse*, 1-2(16-17), 183-197. <https://doi.org/10.28925/2312-5829.2017.1-2.18397>.
- Pulak, I. (2018). Children and Smart Toys in Modern Learning Environment. In E. Smyrnova-Trybulska (Ed.). *E-learning and Smart Learning Environment for the Preparation of New Generation Specialists. E-learning Series*. Vol. 10 (2018). Katowice-Cieszyn: STUDIO NOA for University of Silesia. (pp. 221-228). ISSN: 2451-3644 (print edition) ISSN 2451-3652 (digital edition) ISBN 978-83-66055-05-6.
- Rahiem, M.D.H. (2021). Storytelling in early childhood education: Time to go digital. *International Journal of Child Care and Education Policy*, 15, Art. 4. <https://doi.org/10.1186/s40723-021-00081-x>.
- Rozsak, M. & Kołodziejczak, B. (2017). Teachers' Skills and ICT Competencies in Blended Learning. In E. Smyrnova-Trybulska (Ed.). *Effective Development of Teachers' Skills in the Area of ICT and E-learning. E-learning Series*. Vol. 9 (2017). Katowice-Cieszyn: STUDIO NOA for University of Silesia. (pp. 91-104). ISSN: 2451-3644 (print edition) ISSN 2451-3652 (digital edition) ISBN 978-83-60071-96-0.
- Salamanska deklaratsiia ta ramky dii shchodo osvity osib z osoblyvymy osvitnimy potrebamy*. (1994). [Salamanca Declaration and Framework for Action on the Education of Persons with Special Educational Needs]. Ministerstvo osvity i nauky Ispanii. 1994. Retrieved from [http://zakon.rada.gov.ua/laws/show/995\\_001-94](http://zakon.rada.gov.ua/laws/show/995_001-94).
- Skrypnyk, T., Martynchuk, O., Klopota, O., Gudonis, V., & Voronska, N. (2020). Supporting of Children with Special Needs in Inclusive Environment by the Teachers Collaboration. *Pedagogika*, 138(2), 193-208. <https://doi.org/10.15823/p.2020.138.11>.
- Veličković, S. & Stošić, L. (2016). Preparedness of educators to implement modern information technologies in their work with preschool children. *International Journal of Cognitive Research in Science, Engineering and Education*, 4(1), 23-30. <https://doi.org/10.5937/IJCRSEE1601023V>.
- Zakon Ukrainy "Pro osvitu"* [Law of Ukraine "On Education"]. (2017). Retrieved from <https://zakon.rada.gov.ua/laws/show/2145-19#Text>.