

# Cooperation with Parents on Environmental Education of Preschool Children with Speech Disorders

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**Abstract:** This article presents a comprehensive pedagogical technology for correctional and developmental work with parents and their preschool children with speech disorders. The purpose of this article is also to consider the change in parents' attitude to the environmental education of a child with speech disorders. The project is designed to involve parents and increase their interest in the environmental education of preschoolers with speech disorders. It is investigated to what extent the involvement of parents and teachers in joint research projects increases competencies in terms of knowledge, abilities, and attitudes to educational processes. The article uses several methods of synthesis and analysis in research. The descriptive method and the experimental method were also used. The hypothesis is that using a comprehensive program involving parents for research and experimental activities in environmental education of preschool children with speech disorders promotes the more successful acquisition of knowledge about nature, improves therapy, and strengthens family relationships. In technology, attention is paid to the actual educational activities and the reflection of teachers' and parents' internal structures of competencies. The presented technology systematizes the instrumental-methodical, expressive (behavioral) aspects of teaching and raising a child with speech disorders and provides a universal basis for any intervention program to change attitudes and involve parents in educational work.

**Keywords:** Tolerance, values, psychopedagogical model, speech-language pathologists, elementary school.

## INTRODUCTION

In modern pedagogy, the concept of pedagogical technology is popular (Ko et al., 2013; Barrett, 2018). Recently, much attention is paid to correctional and developmental work with preschool children with various disorders in the cognitive and speech spheres. Cognitive processes (attention, perception, memory, imagination and thinking) are an integral part of any human activity, including speech, and provide the necessary information (Boghian,

2018). The approach to cooperation takes place in the field of environmental education and is an experimental research model that involves the implementation of future research in this area. The researched model in the future can be used as an additional tool for further experimental research, as it combines the theoretical principles and educational goals of humanitarian programs to strengthen tolerant cooperation within educational programs on environmental education and work with preschoolers. Aspects are related to the areas of such correctional and developmental work with preschoolers: one of the areas is related to the interest of parents in environmental education of the child, and the other – to provide teachers with additional tools to improve the effectiveness of correctional and developmental work with children with disabilities. In such developments, attention is paid not only to the actual educational activities,

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but also to the reflection of the internal structures of the competencies of teachers and parents.

The purpose of the study is to consider the effectiveness of involving integrated pedagogical technology in environmental education to enhance parental involvement in the upbringing and education of preschool children with speech disorders. It is also important to identify changes in parents' attitudes to environmental education, increase the level of parental involvement and increase interest in environmental education of preschool children with speech disorders. Efficiency, increase of competence in educational process due to complex work in joint educational and research projects of parents, pedagogical workers, branch experts are defined. Problems of ecological education ways research and its introduction in educational process became a subject of consideration of modern European community (The Future of Jobs..., 2020). Theoretical and methodological principles on such issues belong to and formulated in the research of many scientists (Damian et al., 2017; Čuhlová, 2019).

Recently, there has been an increase in the number of preschoolers with speech disorders (The Future of Jobs..., 2020). Most of them do not have complex speech defects and, therefore, such children do not need enrollment in special groups. However, more attention should be paid to the development of their speech skills. The solution is to develop special techniques of integrated educational technology introduced during their stay in preschool institutions. The organization of such comprehensive care requires the involvement of a team: a teacher-speech therapist, a teacher-psychologist, a specialist educator and parents. Among psychologists, teachers, linguists are those who have created the preconditions for a comprehensive approach to solving problems of speech development of preschoolers. This is primarily a collective study in the field of modern pedagogy (Bolman and Deal, 2008; Salgur, 2013; Dzvinchuk et al., 2020; Rababah, 2020), special work on the study of multicultural environmental education programs (Fritz et al., 2002; Holovaty, 2014), psychological and pedagogical models of tolerance (Guțu and Boghian, 2019). Researchers have long identified logopsychological constants of the language interaction and general psychological

manifestations: cognitive, personal, behavioral sphere (Harding-Esch and Riley, 2003; Leontiev, 2003).

Practical developments on the experience of involving parents, students, problem groups in the pedagogical process also are known and are actively implemented in the world modern educational process. It is also a study of the processes of formation of children's educational competencies using innovative approaches to practical tasks (Kuzmina et al., 2020). Conducting training through research and scientific activities (Ko et al., 2013); developing a tolerant approach in education taking into account socio-cultural and multicultural features of the educational environment (Salgur, 2013).

## **MATERIALS AND METHODS**

In order to consider comprehensively the problem, the authors used a comprehensive approach in this research. The article uses inductive and deductive methods while working with theoretical material, the formation of goals, objectives and research results. The method of interdisciplinary approach was used during the integrated application of sociology (organization of groups of preschoolers and their parents, teachers), pedagogy (organization and conduct of teachers, specialists and educators of the educational process at the appropriate methodological level). Descriptive method used for systematic fixation of experimental materials, coverage and streamlining of the experiment, consistent publication of conditions and results of the experiment. In the study, the method of the experiment is the main one (pedagogical experiment). It encourages parents to participate in environmental education of preschool children; identifies the features of techniques and forms of work with children with speech disorders in the implementation of environmental education; allows determining the effectiveness of technology in terms of qualitative and quantitative characteristics in terms of active involvement of parents in the educational process.

The experiment also involved the use of testing, questionnaires, observations, and so on. In this research also are used statistical methods, which made it possible to evaluate the results of the experiment. The pedagogical experiment lasted for 36 weeks in 2019/2020,

preschool institutions were involved in the work: Preschool educational institution (nursery-kindergarten) of the combined type #284 "Rosinka" (Zaporizhzhya, Ukraine), Kharkiv private preschool educational institution "Dekart" (Kharkiv), kindergarten "Malen'ka rybka" (Kharkiv) supported by the Kharkiv State Academy of Arts (Ukraine) and Zaporizhzhya Polytechnic National University (Ukraine). The experiment involved 2 groups of middle-aged preschoolers (4-5 years) in each preschool institution. The experimental group (G1) consisted of 18 children and the control group (G2) had 18 participants as well (a total of 108 children and 165 parents). In three different preschool institutions of Ukraine, there were 2 groups in each institution and their parents, who agreed to participate in the experiment. Preschool children with speech disorders were respondents, as well as their parents. Their educational and training program provided for the implementation of measures for environmental education. All participants in the experiment (teachers, educators and parents) voluntarily agreed to participate in the experiment, a group of researchers formed all control materials and questionnaires in such a way as to maintain respect for the dignity and privacy of all participants. The introduction of the complex pedagogical technology of the educational and methodical complex presented in the research did not undergo non-invasive interventions, such actions and measures were not used to affect the honesty and objectivity of the results of the participants.

We will consider that game research pedagogical technology is an algorithm of actions of the organizer of game on a sample, preparation of materials, means and conditions for implementation of activity, involvement of all participants in game activity, carrying out researches and supervision in the form of game and consecutive summarizing activities. This corresponds to the understanding of technology as a consistent task-structured set of actions, procedures and stages that provide a specific visual result in a constantly changing environment. The attitude of parents and teachers to play technologies within the environmental education of children is quite different. Some believe that they should be used quite actively; others believe that the methods and forms of classical teaching are acceptable.

## RESULTS AND DISCUSSION

A survey was conducted among parents and teachers of the control group and the experimental group on the feasibility of using a set of teaching methods during environmental education courses. At the introductory stage before the experiment, preference was given to traditional forms, and at the last final stage of the experiments, the respondents already gave priority to games, observation of experiments. Questionnaire of parents on the methods of implementing environmental education for preschool children with speech disorders. Respondents are presented with a list of methods to choose from. Questionnaire: What teaching methods are you willing to engage with your child in environmental education? (Table 1)

**Table 1: Rating of methods in the experimental group of parents during the experiment**

Methods	Start experiment, %	Experiment middle, %	End of experiment, %
Discussion	30	30	25
Conversation	36	32	30
Observation	49	45	45
Game	20	24	30
Working with material	35	35	35
Experiment	20	23	28
Exercises	15	20	20

According to the received data, most parents chose traditional methods at the beginning of the experiment: conversation (36%), discussion (30%), but at the end of the work the parents were also interested in game forms. Game (increased by 10%), experiment (increased by 8%), exercises (increased by 5%). Among the

factors that contribute to increasing interest in the educational process and attitude to subjects, respondents identified the following: methods of education (54%), interest in the subject (38%), the personality of the educator (30%), the content of the subject (29%). Game technologies are used actively in working with

preschool children with speech disorders. The main tasks set during the formation of the course on environmental education are as follows: to create an environment of mental support in the family for children with speech defects. To help and facilitate the processes of language correction by activating the cognitive sphere of a preschooler with a speech disorder. To adapt a

child with speech disorders to life in society, through his/her, involvement in environmental education together with peers and parents. The integrated approach included the following actions of the organizers: to organize work with parents and their children; determination of forms and methods of work in groups with the involvement of parents (Figure 1).

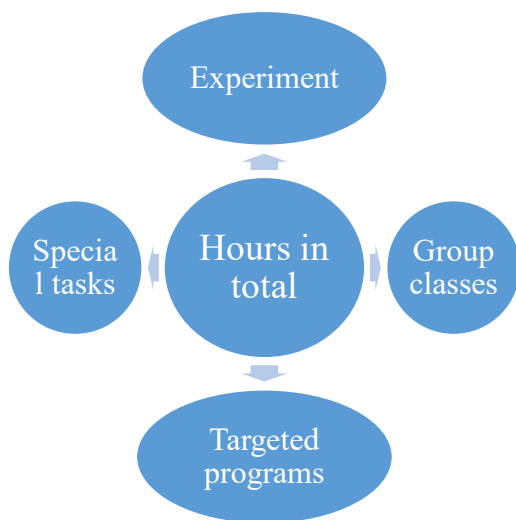


Figure 1. Calculation of elements in the structure of the training course “Environmental Education”

At all stages of this experiment, research was conducted on the effectiveness of the technology of involving parents in environmental education of preschoolers with speech defects.

Measurements of the level of formation of ecological knowledge were carried out. Indicators slightly, but increased in the final stage (Tables 2, 3).

Table 2: The level of formation of environmental knowledge in the experimental group 2

Stage	High level, %	Average, %	Low level, %
The initial stage	15	58	23
The final stage	20	60	20

Table 3: The level of formation of environmental knowledge in the control group 2

Stage	High level %	Average %	Low level %
The initial stage	22	68	10
The final stage	20	70	10

A separate area of work on the implementation of the new program is to work with specialists on their willingness to work with parents in the field of environmental education.

A high level of mastery of the material and extensive experience in methodological and practical work with parents and preschoolers with speech disorders is required (Table 4).

Table 4: Results of diagnostics of teachers before introduction of ecological education

Stage	High level, %	Average, %	Low level, %
The initial stage	70	30	0
The final stage	80	20	0

In addition, an important indicator of the effectiveness of the program was the work to

involve parents in the implementation of environmental education as an element of active

acceptance of the family of a child with disabilities participating in educational processes. Before the start of the experiment and at the final stage, parents were asked about

their attitudes to different teaching strategies, and those that are interesting to them and parents are willing to get involved in this area of work with children (Tables 5, 6).

**Table 5: The results of parents' attitudes towards their involvement in the process of environmental education of the child**

Teaching strategies	Values and attitudes defined by parents	Involvement level, %
Descriptive, illustrative and explanatory quiz	Awareness of the difference between the studied phenomena and processes	60
Problem statement through the game	Tolerance to phenomena, ways of thinking	24
Cooperation in the cognitive process	Personalization and self-realization	56
Algorithmic experiments	Volitional and positive self-regulation of participation in learning	60
Research-based strategy	Self-censorship, analysis and self-analysis of relationships with others	30

**Table 6: The level of parents' involvement in environmental education of a child with speech disorders**

Teaching strategies	Values and attitudes defined by parents	Involvement level, (%)	
		beginning	End
Descriptive, illustrative and explanatory	Awareness of the difference between the studied phenomena and processes	10	20
Formulation of the problem	Tolerance to phenomena, ways of thinking	20	50
Cooperation in the cognitive process	Personalization and self-realization	20	50
Algorithmic experiments	Volitional and positive self-regulation of participation in learning	0	15
Research-based strategy	Self-censorship, analysis and self-analysis of relationships with others	20	50

Problematic aspects of involving parents in integrated work with children with inclusion relate to the construction of competencies, in particular, the component of the attitude to the need for environmental education, participation in education and upbringing of the child (Savu, 2014; Sebalo and Teslenko, 2020). A fair version of the three-dimensional structure of attitude (cognitive, affective and behavioral) requires a comprehensive approach, when the intention is to change it. It is an effective part of such a comprehensive approach is to involve parents in playful forms, interactive forms of environmental education (Mason, 2006). A number of researchers (Smeijers et al., 2020) present psychosocial theories of attitude change and

theories of persuasion to identify strategies and methods of educational work as the most effective either active participation (methods: role play, interpersonal contact, encounter behavioral contact and choice) or persuasive communication (regarding this technique, it is important correctly identify the target group, content and cultural affiliation and guidelines in changing attitudes). Only an involvement of a set of interactive learning tools is acceptable and effective in environmental education. It also provides an opportunity to involve parents in working with preschool children with speech disorders.

The study of the content of the program of the initial educational cycle and its feasibility was carried out in the works of a number of European researchers (Kritsonis, 2007; Popovych et al., 2020). The emphasis in their work is on such disciplines as language and communication, music and movement, foreign languages, religion, physical education, civic education and environmental education (Köktürk, 2012; Cojocariu, 2014). Understanding the importance of environmental education for the modern child is a distinctive feature of European education that is aimed at the future of civilization (Kiki-Papadakis and Chaimala, 2016; Boghian, 2019). Every family should be aware of the importance of environmental issues in terms of proper use of natural resources.

## CONCLUSIONS

Problematic aspects of involving parents in integrated work with children with inclusion relate to the construction of competencies, in particular, the component of the attitude to the need for environmental education, participation in education and upbringing of the child. A fair version of the three-dimensional structure of attitude (cognitive, affective and behavioral) requires a comprehensive approach, when the intention is to change it. It is an effective part of such a comprehensive approach is to involve parents in playful forms, interactive forms of environmental education.

In the experimental group, 2 (20%) middle-aged children showed a high level of environmental knowledge; 6 (60%) – average level; 2 (20%) – low level. In the control group, the results are similar: 2 (20%) middle-aged children showed a high level of environmental knowledge; 7 (70%) – average level; 1 (10%) – low level. Children, parents and educators who participated in the experiment, significantly increased the level of knowledge about objects and phenomena of inanimate and animate nature (compared with their peers from the control group). Diagnosis of kindergarten teachers showed that a high level of professional knowledge and skills, as well as readiness for environmental education of children have 8 (80%) educators; average level – 4 (20%) educators. A survey of parents showed that most of them at the beginning of the experiment were not engaged in environmental education and preschool education. After the experiment,

parents changed their attitudes toward environmental education in children with speech disorders. The increase was approximately 25%. After conducting an experiment, which states with preschoolers from the experimental group (in comparison with preschoolers in the control group), it is planned to conduct a formative experiment, which is a series of experiments and experiments involving parents of preschool children with speech disorders.

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