

ICEST 2021**II International Conference on Economic and Social Trends for Sustainability of Modern Society****ON SOME PROBLEMS OF PRESCHOOL TEACHERS WORK IN
PROFESSIONAL TEAMS**

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Abstract

One of the key skills of the 21st century is a problem-solving skill, which is closely connected with the skill of collaboration. The increasing complexity of technologies in all areas of economy requires interaction of individual specialists, teamwork. This led to introduction of universal (key) competencies into the Federal State Standards of Higher Education of Russia, including the competence "Teamwork and Leadership". Teamwork is characterized by certain team features that distinguish it from a group, team has its advantages and limitations. An empirical study of the level of involvement of leaders and teachers of preschool educational organizations of the Omsk region and the Yamalo-Nenets Autonomous Okrug in teamwork showed, on the one hand, the respondents' awareness of its role and importance in the innovative development of preschool educational organizations, on the other hand, the complexity of organizing and coordinating the efforts of the team, low importance of management characteristics of teamwork.

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1. Introduction

The modern world is usually called VUCA, which is formed from the words volatile, changeable, uncertain, complex, ambiguous. A person's life in a complex world, his success as a professional, requires mastering the same complex skills. The reality today is that the increasing complexity of technology in all areas requires interaction of individual specialists, collective or teamwork. Problem solving skill is considered one of the key skills of the 21st century, and it is closely connected with the skill of collaboration (cooperation).

2. Problem Statement

Development of skills to work in professional teams among preschool teachers requires being studied both at theoretical and practical levels of modern preschool education. The analysis of publications allows us to note that this problem is not sufficiently studied, and this makes the research topic interesting and promising. To solve it, it is necessary to identify: theoretical foundations of the problem of teamwork in preschool education; importance of teamwork in preschool organizations and the degree of development of the problem; involvement of leaders and teachers of preschool educational organizations in teamwork; state opportunities and problems of teamwork in preschool organizations. Each issue will be covered below.

3. Research Questions

- 3.1. During the research, the following questions were raised: What are the theoretical foundations of teamwork?
- 3.2. What is the significance of teamwork in solving modern problems in education?
- 3.3. What is the level of involvement of leaders and teachers of preschool educational organizations in teamwork?
- 3.4. What are the opportunities and problems of organizing teamwork in preschool educational organizations when solving professional problems?

4. Purpose of the Study

The highlighted theoretical foundations for implementation of a team approach in preschool education allowed us to set a goal and objectives of an empirical part of the research. The main goal is to identify the level of involvement of leaders and teachers of preschool educational organizations (ECE) in team work, their interest and willingness to perceive teamwork as an integral part of innovative activity of a modern educational organization.

The objectives of empirical research:

- 1) to study prevalence of team forms of work, regularity of their use, advantages and problems that accompany teamwork;
- 2) to study the range of priority areas, topics and issues that are being worked out by preschool institutions in teams;

- 3) to identify the features of organization of teamwork through compliance with the basic principles and requirements;
- 4) to study the opinions of leaders and teachers of preschool educational institutions about the competencies that teamwork allows to form, as well as the intra-team roles preferred by leaders and teachers;
- 5) to draw conclusions about prevalence and quality of team form of learning and interaction in preschool educational institutions.

5. Research Methods

Universal methods of scientific research and the method of comparative analysis were used.

6. Findings

6.1. Theoretical research

The solution of complex interdisciplinary problems is possible only with the joint work of various specialists. The principle of required diversity was formulated in cybernetics in the last century. According to it, complex systems need complex management. Noskareva (2017) report that a complex society requires complex management systems. Such systems use “big data” and artificial intelligence (data driven management), as well as the potential of human networks and teams (“collective intelligence”).

Analyzing the approaches and research of skills of the 21st century, almost all authors highlight some constants. Among them there is a skill (competence, skill) of cooperation. A survey of several hundred leading US employers allowed Wagner (2008) to identify the “seven survival skills”: critical thinking and problem solving, cooperation, adaptability, initiative and enterprise, obtaining and analyzing information, curiosity and imagination. The International Research Project “Assessing and Teaching 21st Century Skills” (ATC21S) has identified 4 categories of skills: ways of thinking (creativity and innovation; critical thinking, problem solving and decision making; teaching to learn and metacognition); ways of working (communication; collaboration), tools of work (information literacy; ICT literacy) and life in society (citizenship; life and career skills; personal and social responsibility) (Binkley et al., 2012). An attempt to generalize was undertaken by Voogt and Roblin (2012), all definitions include ICT-related skills, collaboration, communication, and social and cultural competencies.

Competence of interaction is revealed in detail through teamwork. In the second half of the 20th century, Granovetter (1973) highlighted the ability to cooperate and interact, establish, develop and maintain social ties as a leader and team member, to take and distribute responsibility, and to coordinate teamwork. Frumin et al. (2018) wrote about cooperativity, an ability to cooperate, to work together (cooperation / collaboration) (doing it as a leader and as a team member), responsibility and its distribution, coordination of actions within the team.

The importance of teamwork, as well as the study of it as a phenomenon in the aspects of team building, development and management, can be seen in works of such scientists as Parker (2002), Belbin

(2003), Lensioni (2011), Zinkevich-Evtigneeva (2012), Marlow (2020), Dalcher (2019), Lapygin (2019), Hermanni (2016).

For example, Marlow (2020) believes that learning about teams and working together is important for both practical and scientific research. Hermanni (2016) argues that teamwork is much more than group work. He asserts it both as a necessity and as a joint task of the entire organization to solve complex problems. "Team building can be seen as the main way of doing work and getting value for organizations and society" (Dalcher, 2019, p. 188). All researchers agree that a team is not just a group of people, it is an alliance of 2 people or more, which is created to effectively solve problems.

Getting a high-quality result is the main characteristic of the team, but not the only one. Let's turn to the features of a team, which distinguish it from a group. Lapygin's research (2019) in relation to project teams distinguishes the following attributes: closer interaction and mutual dependence, team members work exclusively together, which means they communicate a lot; the leader is responsible for team work, all team members share responsibility for the final result. All of these require communication and leadership skills from team members. The need for project activities in organizations requires to create teams, but not temporary creative groups.

A question arises about the number of team members. Researchers' opinions vary from 4 to 15 people. We share Glenn Parker's view that performance, responsibility, participation and trust deteriorate as the size of a team grows. He recommends an optimal team of four to six people (Parker, 2002). Such a number of participants makes it easier to build joint communications and reduces conflict.

Team works for a high-quality result also because it clearly defines roles that all participants play. The most famous is of Raymond Meredith Belbin classification (Belbin, 2003), which united nine roles into three groups: action-oriented roles; people-oriented roles; thinking-oriented roles. The specific names of the roles differ in different sources, but retain their characteristics.

Teams do not arise by themselves; a leader needs to work on its creation (team building). Team building methods are quite diverse. At the first stage, professionals are selected for the task that needs to be solved, then team roles are assigned, various activities are carried out to strengthen the team's cohesion, such as trainings, seminars, games, etc. (Zinkevich-Evtigneeva, 2012).

Team leaders need to be mindful of the difficulties that arise both when building a team and during its development. Lensioni (2011) describes five "vices": mutual distrust, undemandingness, irresponsibility, fear of conflict, and indifference to results. With all the advantages of team work, it should be borne in mind that there are also disadvantages, among which the most significant are:

- time spent on building a team, on its rallying, on discussions during work;
- the ability of individual participants to "hide" behind the overall result, although they made little contribution to the overall work. Here importance of the role of a team leader (project manager) increases.

In general, teamwork, taking into account all benefits and preventing deficits, allows you to perform quality work in all sectors of the economy. It led to the introduction of universal (key) competencies into the Federal State Standards of Higher Education in Russia, which reflect key competence "Teamwork and Leadership". Teamwork skills should be formed at all stages of professional activity development, starting

from university (Sidelnikova, 2018). Foreign studies (Keung et al., 2020) emphasize the role of leadership and mediating role of professional learning communities in the professional development of teachers, in development of cooperation. A survey of 153 kindergarten teachers in Hong Kong showed that kindergarten leaders play a key role in fostering education based on organization of interested parties interaction. State subsidies occupy the main share in the expenditure side of the budgets of underdeveloped territories, their value reaches 75%. The management of the development of such territories is centralized; the efforts of the state are aimed at improving the even distribution of income from the use of natural resources of the North. This is typical for Canada and the Nordic countries.

6.2. Empirical research of involvement of leaders and teachers of preschool educational organizations in teamwork

To determine involvement of leaders and teachers of preschool educational organizations in teamwork, study their awareness, as well as interest and readiness to organize teamwork of pedagogical collectives, a questionnaire was developed for teachers of preschool education "Teamwork in a preschool organization" (compiled by E.V. Namsing, N.V. Savina), and also a modified version of it for heads of preschool educational organizations was drawn up. The survey involved studying the opinions of two groups of respondents: heads of preschool educational organizations (heads of kindergartens, senior educators, methodologists) and teachers (educators, educational psychologists, educational defectologists, physical education instructors). The empirical study involved teachers of preschool educational organizations in Omsk (62.5% of all respondents) and the Omsk region (2.5%), as well as the Yamalo-Nenets Autonomous District of the Russian Federation (35%). A total of 301 people, of which 261 are educators and 40 are heads of preschool educational organizations. The respondents were selected by a simple random selection method.

Characterizing the sample of respondents, one should note such an important parameter as the level of education. Thus, among educators, 75.8% have higher education, 5.3% have master's training, the remaining 29.5% have secondary vocational education. 90.5% of surveyed educators have specialized education. Heads of institutions also indicated that they have specialized education (90.2%). At the same time, 9.8% of them graduated from institutions of secondary vocational education and only 9.8% got Master degrees.

When asked whether they had to participate in teamwork in their organizations, 90.9% of teachers and 92.7% of heads of preschool organizations answered affirmatively. 59.4% of surveyed educators and 90% of heads of preschool educational organizations have experience of participating in a team in other organizations. On the question of regularity and systematic nature of teamwork in institution, the answers of educators and managers have some discrepancies. So, for example, the majority of educators (40.6%) answered that teamwork is organized in their institutions no more than 2-3 times a year, and the heads of the same institutions (55%) answered that they organize teamwork more than 3 times a year. This raises a question of how managers and employees understand the characteristics of teamwork. Perhaps leaders are not organizing team work, but group work. And the subordinates do not understand that they are working in a team, not in a group. Nevertheless, the analysis of the questionnaires shows that in almost all institutions teamwork is practiced, it is performed at least once a year.

When answering the question about what problems the teams in which you had to participate were working on, the teachers gave the answers, which we divided into several semantic groups. The first group of answers was made up of problems associated with development of various technologies of preschool education (designing, health-preserving, interactive, adaptive, social and communicative, educational technologies, technologies of development of different levels educational programs. The second group of questions was related to the problems of raising various categories of children. The third group revealed the problems of professional interaction with pupils families. A separate group of answers was made up of the most common problems, for example, working with gifted preschoolers, professional burnout, and others. It is worth noting that the answers were not clear and, in some cases, the teachers "did not remember" which questions were being worked out by a team.

In our opinion, heads and senior teachers of preschool educational organizations formulated the problems much clearer as they were main initiators and organizers of teamwork in collectives. In the course of analyzing the survey results, the following problems were noted: introduction of new technologies, development and implementation of a new basic educational program for preschool education and educational and methodological complex for it, the development and implementation of innovative projects, self-examination, formation of creative groups for organizing events in preschool educational organizations; searching for new forms of work with parents; organization of a developing subject-spatial environment; use of modern technologies in work with preschoolers, etc.

Table 1 shows answers of the respondents to the question of whether the team in which they worked corresponded to certain characteristics.

Table 1. Assessment of team's compliance with basic principles of team building (%)

Team features	Teachers of preschool educational establishment	Rank	Heads of preschool educational establishment	Rank	Average value	Rank
Number of 7 people	73.4	7	80.5	8.5	76.9	7
Presence of common goal	81.4	4	95.0	1	88.2	2
General responsibility for final result	84.0	3	85.4	5.5	84.7	3
Presence of a leader	64.8	9	85.4	5.5	74.8	8
Distribution of functionality and roles among participants	68.2	8	80.5	8.5	74.3	9
Orientation of everyone for a common success	76.5	6	92.7	2	84.6	5
Constructive interaction of participants	77.3	5	87.8	4	82.5	6
Interchangeability of participants	86.3	2	83.0	7	84.6	4
Obtaining a qualitative result	88.0	1	90.0	3	89.0	1
Total	77.7		86.7		82.1	

As can be seen from the data presented in the table, the most pronounced principles of team formation, according to teachers, were orientation to obtain a qualitative result, interchangeability of

participants, overall responsibility for the final result, presence of a common goal and constructive interaction of participants. Heads of preschool educational establishment put in first place orientation of everyone for a common success, obtaining a qualitative result, interaction of participants. The smallest assessment among teachers received "presence of a leader", next-to-last place occupies distribution of functionality among team participants. Heads' next-to-last criteria was distribution of the functionality between the team members. Different opinions on the question of a leader presence, on the one hand, are quite natural due to status and functional duties differences among respondents. On the other hand, teachers should understand the basis of group management, where work without a leader (manager), distribution of function, and collaboration is impossible. An obvious problem of deficiency of significance of management characteristics in both groups of respondents arises.

Table 2 shows distribution of answers to the question of whether the respondents believe that team work helps a specialist in the field of pre-school education to form specific skills and competences (see Table 2).

Table 2. Assessment of skills and competencies of a specialist in the field of pre-school education formed by a teamwork (%)

Skills and competences of specialists	Teachers of preschool educational establishment	Rank	Heads of preschool educational establishment	Rank	Average value	Rank
Work on projects	88.0	3.5	98.0	2	93.0	2
Systemic thinking	81.4	6	98.0	2	89.7	4
Critical thinking	77.4	7	93.0	5	85.2	6
Creativity	88.0	3.5	90.2	6	89.1	5
Communicability	97.0	2	87.8	7	92.4	3
Self-organizing	98.1	1	95.0	4	96.6	1
Intercultural communication	84.1	5	80.5	9	82.3	8
Leadership	75.0	8	85.4	8	80.2	9
Self-development	67.0	9	98.0	2	82.5	7

According to heads' opinion, work on projects, systemic thinking and self-development come first, further follow self-organization and critical thinking. Self-development received the smallest teachers' rating, and the smallest managers' rating got intercultural communications. Common ranks show the unanimity of self-organization and ability to work on projects. Next-to-last place is occupied by intercultural communication which is explained by the fact that respondents do not have experience of international projects. And the last place, occupied by leadership which, following the theory of teamwork, develops in it very well, causes a question. Correlating this result with the last place of leadership in Table 1, we obtain a specific problem and direction of working with teams.

The question of the role that a specialist prefers, working in a team, supposed teachers' choice of one or more roles from the proposed (a leader, an organizer, an ideas generator, a critic, an expert, a performer, an informal leader, an analyst, an internal communicator, a resource researcher, a controller, and other roles). Teachers often chose roles of a performer, a critic, an informal leader, an analyst. It is important to note a relatively wide range of roles preferred by teachers. Most leaders chose a role of a leader and an organizer, and a role range itself was much more limited than teachers had.

In a number of basic problems of intra-and inter-commission interaction, teachers allocated organizational and communicative problems, and managers spoke about management problems. When answering a question: "Is team work an effective way to solve problems in preschool education?" - 83.1% of teachers and 97.5% of heads gave an affirmative answer. Arguing his choice, teachers pointed out that such work contributes to cohesion and the most efficient solution of team problems. Examples of the most complete and accurately formulated responses about teamwork: "On the basis of the personal experience of each participant, we can make general conclusions and come to a common goal, tasks and methods for solving pre-school education issues", teamwork "helps more competently and quickly develop necessary pedagogical product", "promotes development of creative thinking, unification of a team, formation of an active life position", "you can solve the problem faster and more efficiently" and others. Managers in the field of pre-school education also noting the importance of teamwork, made an emphasis on achieving a better result, as well as the development of a common strategy for work of pedagogical team and achieving global objectives of pre-school educational organizations.

7. Conclusion

7.1. Conclusions of theoretical research

Teamwork is characterized by certain features of a team, distinguishing it from a group, advantages and restrictions. Work in a team, especially on projects, allows you to get a qualitative result with optimal efforts. A team, in contrast to a group, has a number of characteristics, the main of which are a few members, a leader, distribution of roles, shared responsibility for final result. The leader of a team needs to predict possible risks and prevent them at the stage of team building. Teamwork skills should be formed at all stages of professional activity.

Introduction to the federal state standards of higher education of Russia universal (key) competencies, including competencies "Team Work and Leadership" indicate their exceptional importance to solve a wide range of problems arising in different branches of science and practice. The problem of developing work skills in professional teams in teachers of pre-school educational organizations requires further study on both theoretical and practice levels of modern pre-school education. Theoretical research of the problem made it possible to conclude a number of conditions for organization of teamwork in pre-school educational organizations, including: a few members, presence of a leader, distribution of roles, shared responsibility for final result. Engagement in teamwork allows you to get a qualitative result with optimal efforts. Teamwork skills should be formed at all stages of professional activity, starting from university and ending with postgraduate education system.

7.2. Conclusions of empirical research

The results of empirical research of formation of teamwork skills in teachers clearly showed that there is a contradiction between educators' and heads' views of this process. It can be a serious obstacle in development of innovative practice in preschool education. Practical experience of specialists of pre-school education in workplace, professional activities require use of a team approach as a condition for further professional development. The performed empirical study showed that teamwork is widely spread in

modern education. But the data obtained indicate that teachers' and leaders' understanding of a team approach is at the stage of formation. They have no idea about the possibilities of working in a team for innovative development of pre-school organizations. The organization of teamwork in preschool institutions requires the following conditions: improvement of its algorithm, more rational use of pre-school educational organizations, full study of teamwork by educators, more focused and managed interaction of team members to solve professional tasks in pre-school educational organizations.

The empirical research showed a wide use of teamwork in pre-school educational organizations, but there is lack of regularity. Teachers and heads of pre-school educational organizations note the advantages and problems that accompany teamwork. Advantages are possibility of joint solving a wide range of problems, development and self-development of teams and teachers, cohesion of a team. Difficulties of organization and communication, coordination of efforts of members of a team, as well as motivational issues stand out as problems. Priority areas, which are being studied by educators of kindergartens in team forms of interaction, are mastering pedagogical technologies, development and implementation of programs and innovative projects. The peculiarities of organization of teamwork include orientation on a single goal and obtaining a qualitative result, interchangeability of participants, general responsibility for final result, constructive interaction of participants. In the process of organizing teamwork, teachers of preschool education formed competencies in the sphere of self-organization, communicability, creativity, systemic and critical thinking. They have an opportunity to carry out different roles when organizing teamwork, while the leaders are mainly striving to fulfil the roles of leaders and organizers, that becomes a problem in work of a team. Another important problem is low importance of the role of leadership and management functions of teamwork among educators at all stages of professional activity. Differences are particularly allocated in assessing the number of activities that are necessary for organization of teamwork. Respondents revealed a certain discrepancy in assessment of this position: leaders are more likely to organize team work than employees to participate in it. In general, it is worth noting that teamwork and a team approach have received a high assessment of their role and significance in innovative development of pre-school educational organizations.

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