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LEARNING ENVIRONMENT FOR SUSTAINABLE DEVELOPMENT: OMEP ESD RATING SCALE IN RUSSIA

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Abstract

Currently, education for sustainable development is a priority area of Early Childhood Care and Education (ECCE). In 2009 the World Organization for Early Childhood Education (OMEP) announced the launch of an international project on Education for Sustainable Development (ESD) of young children, the topics of which change regularly. The article gives a brief overview of the development of education for sustainable development of preschool children in Russia, examines the implementation of the latest OMEP project - ESD Project Rating Scale in Russia, analyzes its first results, the difficulties encountered by pedagogues in using the new method of assessment of the developmental environment, and ways to solve them, the perception of the scale by pedagogues, options for preparing pedagogues to participate in the project and organization of work on the developmental environment assessment in different kindergartens. The importance of adapting the conditions of the OMEP ESD Rating Scale Project to Russian reality is discussed, examples of recommendations of the National Project Leader for the use of rating scale indicators are given. Conclusions are made about the importance of the rating scale for kindergarten development and the incorporation of sustainable development ideas into educational programs. The first results of the pedagogues' evaluation of the developmental environment of kindergarten (group) in all three dimensions of ESD (environmental, economic and social, including culture) are analyzed.

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Keywords: Education for sustainable development in ECCE, ESD OMEP Project, OMEP, Rating Scale, Sustainable development

1. Introduction

Sustainable development implies that a society develops in such a way that its present needs are met, but also resources and the environment are preserved to meet the needs of future generations. In 2015 The UN General Assembly formulated 17 Sustainable Development Goals to achieve a sustainable future, which can be contributed also by children (UNESCO, n.d.). The implementation of the ideas of sustainable development is impossible without appropriate education of the population, the formation of a new system of values, starting from an early age (Larsson & Pramling Samuelsson, 2019; Pramling Samuelsson, 2011; Ryzhova, 2016). That is why the ideas of sustainable development are included in both formal and non-formal education at all levels. Sustainable development integrates three dimensions: environmental, social, including culture, and economic. Accordingly, they are reflected in education for sustainable development. Currently, the ideas of ESD are being implemented in preschool education in many countries. (Engdahl et al., 2021; Li et al., 2019; Pramling Samuelsson et al., 2019).

In 2009 OMEP launched a project on education for sustainable development of young children, which involves many countries (Engdahl, 2015). The main goal of the project is to introduce pedagogues, children and their families to the concept of sustainable development and involve them in a variety of activities aimed at the sustainable development of society, to form a new system of values for children and adults. It is extremely important that children are seen as citizens capable of understanding the problems of society and the environment (at an accessible level), of coming up with their own ideas and taking part in their implementation as much as they can (Engdahl, 2021; Pramling Samuelsson & Park, 2017; Ryzhova & Ryzhov, 2020; Siraj-Blatchford & Brock, 2019; Siraj-Blatchford & Moyle, 2021).

In Russia, ESD for preschoolers emerged in the late 1990s (Ryzhova, 2001). Initially, it was ecological education for sustainable development. The UNESCO and Moscow Department of Education project "Moscow Education: From Infancy to School" (2008-2012) made a great contribution to the dissemination of ESD ideas in Russia. Within the framework of this project, a separate project on ecological education for the sustainable development "Nature and Us" (UNESCO & Moscow Department of Education, n.d.) was carried out. Since 2010, Russia has actively participated in OMEP ESD projects.

The international OMEP project includes several topical parts. In 2019, another project was launched called OMEP ESD Rating Scale (OMEP, 2019).

2. Problem Statement

The learning environment has a great impact on the development of a child, forming, among other things, his/her values, which is extremely important for the implementation of the ideas of sustainable development. The child lives in various environments - at home, in kindergarten, in the city, in the country. In Russia much attention is paid to the learning environment of preschool institutions. The requirements for the creation of the developmental environment in kindergartens are reflected in the Federal State Standards for Preschool Education. However, they do not mention ESD. ESD ideas are reflected in one comprehensive ("The World of Discoveries") and one partial ("Our Home is Nature") preschool education programs (Peterson & Lykova, 2019; Ryzhova, 2017). There are recommendations of experts to create a learning environment for environmental education, for socialization of a child, but

so far there is no answer to the question of what exactly should be the learning environment that promotes education for sustainable development. What criteria can be used for such evaluation? How to evaluate whether the activities of pedagogues and kindergarten conditions promote education for children's sustainable development? Part of the answers to these questions were given in special projects "Ecological passport of kindergarten: environment, health, safety" and "Green kindergarten: where to start?", which were developed in Russia in the late 90s and are currently used (Ryzhova & Ryzhov, 2017). In carrying out the projects, kindergartens evaluated the environment of the neighborhood, the developmental environment of the territory, the building and premises of the kindergarten, educational programs and methods, the use of resource-saving technologies, the safety of equipment and toys, the cooperation of the kindergarten with the family, the community, and a number of other indicators. For many years the implementation of this project in Russia has promoted the interest of pedagogues in the OMEP ESD Project Rating Scale, since many of the criteria of the project "Ecological passport of kindergarten" generally coincided with the criteria of the Rating Scale. A number of kindergartens in the country participate in the "Global sustainable school program" and other international programs (Ecoschools, n.d.). National parks, museums, ecology centers, volunteer movements, universities, schools, and other governmental and non-governmental organizations are involved in the dissemination of sustainable development ideas in Russian kindergartens. Ideas of sustainable development are discussed at international and nation-wide, regional conferences on preschool education. Thus, we can conclude that many kindergartens in Russia were ready to participate in the OMEP ESD project. At the same time, there were also pedagogues who had not previously engaged in education for sustainable development among the project participants.

3. Research Questions

Analysis of the results of the OMEP ESD Project in different countries will allow the rating scale to be developed, supplemented, and adjusted (OMEP, 2019). Since this is the first time such a project is being implemented in Russia, one of its main tasks is to find an answer to the question: is it possible to apply this scale in preschool education in Russia? How is this scale perceived by pedagogues? What are the peculiarities of the application of this scale? What does the assessment of the learning environment according to this scale give to the kindergarten? Does it change the system of values of children, pedagogues, and parents? Finding answers to these questions is also important for pedagogues, as it allows them to evaluate educational programs and the learning environment of kindergartens from a new perspective.

4. Purpose of the Study

The purpose of the study is to conduct a primary analysis of the results of the project and determine its significance for the development of the educational environment in kindergartens; to identify the problems that teachers faced when implementing the Rating Scale, and ways to overcome them.

5. Research Methods

In this project pedagogues used the ESD Rating Scale, developed by a group of OMEP experts (Siraj-Blatchford et al., 2016). As the authors note, this Child Development Environment Assessment Scale (OMEP ERS-SDEC) is based on the same methods as the other tools, the ECERS-R Adjusted Child Development Environment Assessment Scale and its ECERS-E extension, and can be used in conjunction with these scales as a supplement (OMEP, 2019).

The OMEP ERS-SDES is designed primarily for pedagogue self-assessment, not for comparing the work of different pedagogues or kindergartens. It is based on the pedagogue's own observations and allows him/her to assess the developmental environment of his/her group and to plan further actions to change it. In this case the preference is given to the option when the assessment is carried out by external experts. An important feature of the project is the support of children's initiative and independence, the involvement of children in a variety of activities to change the kindergarten environment, as well as an integrated approach to the content of educational programs (integration of the three dimensions of sustainable development – social, economic and environmental). Adults start from the idea of children as citizens of their country and the world, capable of influencing many processes, and try to hear the voice of child (Višnjić Jevtić et al., 2021). OMEP pays a lot of attention to supporting children's rights and the importance of hearing their voices, including in ESD projects.

OMEP ESD Project Rating Scale includes several stages: the first stage – translation of the scale and its adaptation to the country context, familiarization of pedagogues with the project and the scale, pedagogues' evaluation of learning environment using special scales, filling in necessary documents, the second stage - analysis and discussion of results, identifying areas which require new approaches, developing plans to create the developmental environment for sustainable development in kindergarten; the third stage – discussion of project results with children, definition of a topic of the child-adult project and its implementation, which will help to eliminate the found deficiencies, and reassessment of the developmental environment. The International Rating Scale is aimed primarily at making it possible to compare the situation of education for sustainable development in kindergartens in various countries, i.e. it contains indicators which can be used by pedagogues in different countries. Our previous experience in implementing other OMEP ESD Projects has shown that tutors' acceptance of the project's conditions and its effectiveness largely depend on adaptation of the project's conditions to Russian reality and the availability of examples from the practice of preschool education. That is why the rating scale was supplemented with recommendations and explanations of the National Project Leader (Ryzhova, 2021).

5.1. Social and cultural sustainability

This area implies the kindergarten's aspiration to create a culture of sustainable development (preschool institutions initiate projects, take part in these projects and other collective activities aimed at exploring and critically evaluating established social and cultural traditions and prejudices in order to incorporate sustainable development practices into the daily lives of children and adults). In assessing the developmental environment according to the criteria of this group, pedagogues evaluate the content of books, various illustrations, multimedia materials, games, costumes, equipment of play areas in terms of

the existence of cultural stereotypes and opportunities to overcome them. In addition, pedagogues determine how fully social problems are reflected in the programs, plans, whether there are conditions for communication of children in their native language, conditions for games, discussions, which help to give consideration to these problems. Much attention is paid to the assessment of the kindergarten's cooperation with other organizations, institutions, and children's participation in local community activities.

An example of the National Project Leader's adaptation of some of the criteria of this dimension to Russian conditions.

Scale indicator: There are some displays and resources that challenge stereotypes and depict diversity in positive ways (books, puzzles, posters, costumes, equipment (OMEP, 2019).

National Project Leader Recommendations: Analyze literature, games, toys, etc. that you have in your group (kindergarten). For example, you have dolls of different nationalities, races (collections of dolls), books, posters to introduce different cultural traditions, fairy tales of different peoples, illustrations, postcards, videos of different national costumes, photos of different countries, etc., recipe books of national dishes, toys and games of different peoples, national musical instruments, you create mini-museums, exhibitions on the specified topic, etc.

Scale indicator: The value of social and cultural heterogeneity is not mentioned in the local preschool curriculum and planning. Multilingual children are not allowed to use their mother tongue (OMEP, 2019).

National Project Leader Recommendations. At first glance, the answer would seem to be no. But here we need to separate the question into two parts: analysis of your educational programs and actual practice. Do you know what the children's native language is? If there are children whose native language is not Russian, can they speak their language? If not, why not? It is unlikely that you forbid them to do so. Perhaps, they simply have no one to talk to, because no one but them knows this language. Are there times when two children communicate with each other in their own language? Do you create conditions for this or your main task is to adapt the child to the Russian-speaking environment?

5.2. Economic sustainability

The second area helps to assess the kindergarten's efforts to create a culture of sustainable development (the pre-school institution initiates and implements projects and other collective activities to explore and critically re-evaluate the use of resources and consumer habits in terms of implementing an economically sustainable approach to the daily practices of children and adults). This subsection distinguishes such groups of criteria as: "Consumption of resources", "Money and budget planning", "Sorting and recycling, resource sharing (redistribution)". Children's participation in the discussion of topics related to money, saving money and resources, responsible consumption, shopping for toys for kindergarten, having play materials on the topic "Economy" is assessed. Separate grades are given for children's participation in sorting waste, reusing unnecessary items. Resource sharing implies that the preschool institution uses libraries, parks, playgrounds together with other educational organizations. Children, their families, and pedagogues share resources, skills, etc.

An example of the National Project Leader's adaptation of some of the criteria to Russian conditions.

Scale indicator: Children are regularly involved in purchasing decisions in preschool. Economic issues related to being a responsible consumer. Choice of toys, food and media are discussed (OMEP, 2019).

National Project Leader recommendations. There are few kindergartens in Russia where the purchase of toys and games and products are discussed with children beforehand. This is due to the procurement system itself. However, in private kindergartens it is quite possible to involve preschool children in such a discussion. There are examples of involving children in such activities in some rural kindergartens. In any case, you can start discussing these issues with preschoolers. Responsible consumption is both saving water, paper, energy, and sorting waste for further recycling. It can also be conversations about whether we always buy what we necessarily need. Try to assess how the kindergarten treats food - do you throw away a lot of food waste (yes, the catering service in our kindergartens is not yet conducive to saving food resources, but we do the assessment in order to think about such situations and decide together with the children what can be done).

5.3. Environmental sustainability

Pedagogues assess the extent to which their kindergarten strives to build-up a culture of sustainable development (initiates and implements projects and other collective activities to explore and critically re-evaluate basic human rights relevant to the survival of humanity as a whole, human dependence on nature in order to introduce environmentally-based and sustainable approaches into the daily practices of children and adults). This dimension includes the following subsections: "Natural World", "Caring for Nature", "Locally-Centered Education", and "Healthy Environment". The criteria allocated for this dimension allow pedagogues to assess the availability of nature, natural materials for children, the availability of opportunities to contact with nature and take care of it. Separate criteria are used to assess the presence of danger in the environment (hazardous substances in toys, equipment, excessive use of plastic, lack of clean water, healthy food, environmental pollution, etc.). Locally-centered education assumes that children regularly explore the environment outside of kindergarten and discuss the issue of supporting biodiversity, and pedagogues discuss with them topics related both to the health of the children themselves and the environment.

Examples of the National Project Leader's adaptation of some of the criteria to Russian conditions. Scale indicator: In the preschool, children have little or no access to the natural world (OMEP, 2019).

National project manager recommendations. Analyze where and when your children have contact with nature (on the kindergarten grounds, outside the kindergarten, etc.), and use the notes to indicate the reason why children have no contact with nature (if there is none). What conditions for communicating with nature have been created on the kindergarten grounds? Now the situation in kindergartens in our country is very different: somewhere children do not go outside the kindergarten, and somewhere they visit parks, forests, national parks even in today's pandemic conditions.

Scale indicator: Children explore the surrounding environment, nature and forests and discuss the conditions for biological diversity (OMEP, 2019).

Project National Leader recommendations. In this item of the scale, for some reason, the forest is listed separately from nature. In our country, kindergartens are located in different natural areas, and forests are not everywhere. Many pre-school institutions are located in tundra or steppe zones. If necessary, adapt the scale indicators to the natural features of your region. In this item, indicate the natural community specific to your natural zone.

In order to assess the development environment, the authors of the scale suggest assessing five areas in each of the three dimensions. The indicators help one understand what the kindergarten has done for sustainable development (OMEP, 2019). The pedagogue completes the "Rubric Self and Team Assessment and Development OMEP ESD Rating Scale" tables - assigning scores, providing examples for each indicator, describing his/her observations and plans for change. Besides the recommendations for the Rating Scale, the National Leader developed a number of questionnaires and forms that facilitated the generalization of results and planning. The project was given a title – "Is Your Kindergarten Ready for Sustainable Development?" which helped pedagogues understand the purpose of the project.

6. Findings

The project involved 76 preschool institutions from 37 regions of Russia (7,834 children and 628 adults – kindergarten teachers, senior kindergarten tutors, kindergarten administrators, ecological education pedagogues, music teachers, physical education instructors, psychology pedagogues), as well as students, university professors, families of preschoolers and employees of different organizations. Analysis of the results of kindergartens showed that, due to the pandemic, 46 municipal and private kindergartens from the regions of the country fully implemented the project over the past year. It is their first results are summarized in this article.

6.1. Teacher Training

In Russia, teacher training and discussion of the results were conducted at several levels.

At the federal level. At the first stage of the project, the National Leader, in cooperation with one of the leading journals, organized a series of webinars where three important problems were discussed: – What is OMEP? – What is sustainable development and education for sustainable development? – How and why to do a "Is Your Kindergarten Ready for Sustainable Development?" project using a rating scale? These same problems were also discussed at webinars for pedagogues of the National Environmental Foundation and at international and nation-wide conferences. Information about the project was disseminated on social networks. All this helped to increase pedagogues' interest in participating in the project. In their reports, many pedagogues noted that it was the webinars that helped them overcome difficulties in assessment.

Pedagogues' Opinion:

The scales were developed taking into account international practice, the essence of the questions is not always clear. Without the explanations of the National Leader, we wouldn't have been able to answer, the experience of our kindergarten in this area is very small.

At the regional level. A number of regions organized their own webinars and workshops for

pedagogues, in particular with the participation of teachers and university students.

At the kindergarten level. In kindergartens pedagogues got familiarized with the scale and discussed the possibilities of its application in their institution. Familiarization was organized in different forms: pedagogical meetings, seminars, fairs of pedagogical ideas, workshops.

6.2. Special aspects of the organization of work

Analysis of the results showed several options of the organization of the project in kindergarten: a) assessment of the development environment shall be done by one teacher, b) senior tutor and teacher or several teachers, c) senior tutor only, d) teachers and professionals (supplementary ecological education pedagogues, music teachers, physical education instructors), e) teachers, students, f) teachers and parents. In some kindergartens teachers or senior tutors themselves evaluated the development environment of the group without additional expertise from colleagues, in others, teachers from different groups became experts and evaluated the development environment of "someone else's" groups. Often a senior tutor acted as an expert and assessed the development environment after it had been assessed by the teachers. It has been found that assessments of teachers themselves and experts "from outside" not always coincided. For example, it was noted that many teachers took into account not only what they saw at the moment but also their work in general when assessing their own group, while outside experts took into account only the development environment at a particular moment in time. In such situations pedagogues analyzed the results of the assessment, compared their approaches and found a common solution. More objective indicators were obtained in kindergartens where pedagogues assessed the development environment in peer groups and discussed the criteria of the scale and the results obtained in joint meetings.

6.3. Challenges faced by pedagogues

The main challenge faced by pedagogues was the implementation of the project in a pandemic conditions. However, the situation varied from region to region. In the spring of 2020, children in a number of regions did not attend kindergartens, which allowed pedagogues to devote more time to study the rating scale and assess the development environment. Pedagogues in some kindergartens discussed the project online, both among themselves and with children and parents. Due to the pandemic, many preschool institutions cannot go outside their territory and invite parents and representatives of various organizations to visit them, which made it difficult to assess the criteria of the social component. Children's contact with nature was limited. Children and pedagogues could not move around the whole building, so the environment of the whole kindergarten was usually assessed by the housemaster. A number of toys and equipment, which are difficult to disinfect, were removed from the group rooms for a while.

Assessment of the development environment according to the criteria of the economic dimension caused the greatest difficulty for the pedagogues. The most difficult to assess was the indicator of

children's participation in the purchase of toys, games, etc., as in municipal kindergartens purchases are organized. Pedagogues' evaluation of the development environment also showed that the educational programs do not pay enough attention to the topics "Money", "Finances", children do not practically participate in discussions on these topics. At the same time, many kindergartens hold a lot of activities on a number of criteria related to saving resources. Children are involved in activities on sorting waste, on learning about the resources that the kindergarten consumes (water, energy), and ways to use them rationally. (In Russian practice, these topics traditionally belong to the environmental rather than economic dimension and are an important part of ecological education programs). Pedagogues' opinions on the need to evaluate such topics as "Money and Budget Planning" and "Resource Sharing" were divided. These topics are poorly represented in kindergarten educational programs and are rarely discussed with preschoolers. Some pedagogues believe that it is too early to discuss these topics in kindergarten, while others emphasize the need to organize work with children in this direction and have already begun to develop appropriate projects. The assessment of resource savings in the kindergarten did not cause difficulties. However, some pedagogues noted that waste sorting has not yet been organized in their settlements, which makes it difficult for children to develop environmentally sound waste management skills. Some teachers noted that kindergarteners talk about the need to save resources, but in practice nothing is done to do this. Senior tutors noted that through the project, economic education knowledge and skills that tutors themselves lacked were identified.

Pedagogues' Opinion:

In general there were no difficulties, but some items of the scale puzzled many pedagogues, for example, money and budget planning (procurement of toys according to the interests of children, not according to the list of preschool FSES (Federal State Education Standards); justice and equality (topics of religion, poverty, conflicts between countries are rarely addressed in our work with children, and therefore we didn't get to realize at once how we should assess and what to plan in this item, only in group discussion we outlined the prospects).

Assessment of the criteria of the environmental dimension caused the least amount of difficulty, which is associated with the popularity of ecological education in Russia and the availability of a large number of methodological recommendations for organizing work with children. The revealed difficulties are connected with the official regulation of pre-school institution life. For example, it is not allowed to keep aquariums and pets in the group rooms. In some regions children cannot go on excursions. Assessment of the social dimension indicators did not cause any particular difficulties, since Russian kindergartens are characterized by a close connection with society. Before the pandemic, children in many cities and residential settlements visited botanical gardens, schools, libraries, agricultural enterprises, ecological centres, museums, and exhibitions. Some kindergartens considered pre-existing relationships in their assessments, while others made assessments based on the current situation, but made plans for cooperation for the future. In some kindergartens, the criterion "Social and Cultural Diversity" caused difficulties. Most kindergartens have polylingual children, but in kindergarten they tend to communicate in Russian. Participation in the project helped the pedagogues to draw attention to the fact that children do not have the opportunity to speak their native language and to outline a plan to change the situation.

Pedagogues' Opinion:

Participating in the OMEP project made us think about working with polylingual children. Often these children are sent to kindergarten to learn to speak Russian because their parents speak their native language at home. It is not uncommon for these children to have difficulty adapting because of difficulties in understanding. We strived for a child to gradually become a part of the team – to establish contacts, to learn to explain himself/herself to other children, and subsequently to improve his/her speech. Discussing the scale, we came to the conclusion that it is possible to work with such children and their families to get acquainted with another culture and traditions. Now we are looking forward to the end of the pandemic in order to implement these ideas.

7. Conclusion

The Rating Scale may be applied in preschool institutions in Russia as well as in other countries, but it needs to be adapted to take into account the content of state documentation governing the work of kindergartens, the traditions of pre-school education, and even climatic conditions. In order to work successfully with the scale, it is necessary to give examples of its implementation options in the conditions of Russian kindergartens, taking into account generally accepted practice. OMEP ESD Project gives an opportunity to acquaint pedagogues, children and parents with the concept of "sustainable development" and to involve them in activities to implement its ideas. Many pedagogues noted that the work on the scale made them analyze and change their system of values, take a fresh look at the kindergarten development environment and think about the need to change it. Often pedagogues had questions when choosing their scores for the evaluation of results. Many pointed out that activities with children could correspond to several indicators at the same time.

When assessing the environment, pedagogues questioned whether the same scale could be used to assess the development environment of groups of children of different ages, since the development environment in the groups is very different. During the pandemic there were unexpected difficulties in the project implementation, but they were different in different regions of the country due to different epidemiological conditions. The social dimension was the most difficult to evaluate, since pedagogues and children could not go out into the society and invite parents and employees of different organizations to visit them. However, some kindergartens - participants of the project - for the first time created a virtual network of interaction with various institutions of the city (rural settlement). It turned out to be impossible to evaluate the resource sharing. According to the results of the analysis of the evaluation of the development environment, pedagogues, together with children, discussed the results and outlined a plan of action.

98 % of the pedagogues noted the positive impact of the project on the kindergarten life. 62 % of the kindergartens did not have any problems with the project in general. At the same time, some pedagogues noted that the scale was too broad and required a lot of work. Difficulties arose in the systematization of the data obtained. For example, pedagogues questioned whether it was necessary to combine all the data obtained or whether it was sufficient to take only one dimension.

Pedagogues' Opinion:

- Participation in the project helped us to see the weaknesses in our work with children. We pay very little attention to children's initiative in issues of social justice and the economic dimension. This project gave a good impulse to revise work with children and develop a plan of work to solve problems for the future.
- It is a very interesting project. It helps to evaluate the educational conditions from different perspectives, to see what areas are lacking in the work and to structure the work in such a way as to fill the gaps. There is a little lack of support at the evaluation stage.
- We come to the understanding that the work on sustainable development should be conducted in an integrated, systematic way and should involve all age groups.
- The main difficulty is pedagogues' objections. Not all of the tutors agreed to change something right away, but over time their thinking began to change, and pedagogues started to get involved in the process. It is very interesting to see how our kindergarten is changing!
- It was a very interesting experience, it helped many pedagogues to take a fresh look at the development of preschooler (in an international context). All the pedagogues pointed out the importance of each dimension of ESD. We analyzed the results and immediately saw the strengths and weaknesses of the development environment of individual groups and the kindergarten as a whole.
- The research on the scale helped to identify the situation with deficiencies and strengths of the educational program, to identify areas where additional actions leading to sustainable development are needed.
- This rather interesting experience helped many pedagogues to see child development across the world in a new light. We are thankful for the new vector of the kindergarten's development.
- We note the convenience of the scale for self-assessment and the high importance and value of the scale.

So, we can say that the first approbation of the rating scale in general was successful and this method of assessment of the development environment interested many pedagogues, allowed them to change educational programs, to implement new approaches to the environment, to analyze their relations with preschool children.

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