



## Educating the Gifted in Russian Region: Pilot Study in Udmurtia

Julia Chernenko<sup>1</sup>, Anna Borisova<sup>2</sup>, Arina Grosul<sup>3</sup>

HSE University, Russian Federation<sup>1,2,3</sup>

### Abstract

*The following study is based on the materials of students' field research in the city of Izhevsk, Republic of Udmurtia that was held in November 2018. The field research included 23 focus groups with teachers and children held in 6 individual schools, 1 center for additional education and 1 network school project with 6 schools in it. Among others, several practices were discussed in details, such as Singapore method lessons, integrated lessons (when the topic is studied from the standpoints of several disciplines), mobile lessons and blended learning methods, as well as group projects during art and science sessions in the resource centers. Sufficient challenges that face the Russian educational system are individualization and differentiation of education, so the professionals aim to implement strategies that will fasten the study process and enrich the child (deepen the knowledge). Thus all the examined practices were classified within three main dimensions: disciplinary / art gift, group / individual work, development of schoolers / development of teachers. As a result of the study, best practices are described and analyzed to re-implement in other Russian regions.*

**Keywords:** *Gifted children, teaching practices, inclusive learning, blended learning, project approach, regional schools;*

### 1. Introduction

The goal of finding and developing the gifted children in Russia became the topic of discussion starting from 2014. In his address to the Federal assembly in 2018 Russian President Vladimir Putin set "reinforcement of the whole system of support and development of talents of our children" as one of the main goals for the country [1].

The key reason for this interest is the long-held apprehension that economically Russia mainly develops within the resource way, while the technological potential of the country remains relatively weak in comparison with the leading EU countries or the USA. According to some Russian experts, the primary method to switch the country to the technological way of development is to educate the children who demonstrate talents within digital and hard-science disciplines.

At the same time, most of the Russian regions traditionally suffer from the lack of financial and human resources: the migration of skilled and enthusiastic specialists in education to Moscow and central regions, low salaries of school workers in regions, a shortage of the high-technological facilities and other factors that were described during the fieldwork in Udmurtia.

Concept of Giftedness is actively studied by international scholars, who develop different models of Giftedness and methods of its evaluation. S. Pfeiffer describes at least four models that we considered during the study: traditional psychometric views, talent development models, expert performance perspectives, and multiple intelligences [2]. The conceptions were also described by S. Phillipson & M. McCann [3]. The three-ring conception of Renzulli was also taken into account [4]. The issues of development of education in Russia were studied by M. Barber and M. Murshed [5], I. Ushatikova [6] and Zavel'skiy et al. [7].

### 2. Results

The teaching staff of Municipal Budget Educational Institution "Economic and Mathematical Lyceum №29" (abbreviated "EMLy") practices the format of "blended lesson." This activity, which usually combines three subjects from different cycles of Sciences. During it, a topic is discussed from the point of view of different subjects. This unusual format of information contributes to better assimilation of knowledge.

Meta-subject approach is implemented in Municipal Budget Educational Institution "School of the Cadet Movement of Izhevsk City" (included in the academic Park – educational complex, which will be discussed later). Students of this institution participate in meta-subject conferences in Russia (including Moscow). The meta-subject teaching methodology at the school includes the balanced development of skills needed for the professions connected with the military (physical education, Mathematical science, military medicine).

## 2.1 Project activity

It is worth noticing such educational practice as a project activity. Within the project approach students implement a project on the interdisciplinary field or one chosen subject following their personal interests. The project activity is held in schools in different directions.

In some schools, it is a social project aimed at improving school processes and educational space. For example, in the network of schools Academpark children organized their "Patriotic club," created a project "Balcony" - a space like coworking, where anyone can spend their leisure time. In the national gymnasium Kuzebay Gerd, a student on his own organized a club of intellectual games, which is carried out by students themselves. They create activities for their colleagues such as intellectual games, quizzes, and brain rings. Thus, children receive organizational skills and develop initiative and independence in decision-making. Teachers do not participate directly in such projects, but only monitor their activities as tutors, guiding and helping in case of problems.

## 2.2 Singapore lessons

Another notable practice, widely used in the Budget Institution Secondary Boarding School of the Udmurt Republic "Republican Boarding Lyceum," is the Singapore technology of conducting the lesson. The method is aimed primarily at the formation of children's communication skills and successful interaction in groups (group work). It should be noted that the purpose of "Boarding Lyceum" was to provide children from remote villages with access to high-quality secondary education, and in the Lyceum, such children are trained for the most part. Teachers note that "rural" children have certain complexes, unusual for "urban" children, including difficulties with the construction of communication. Therefore, for teachers, this task is the most urgent and requires a phased solution throughout the training of each individual issue.

## 2.3 Program of cooperation with enterprises

The mathematical and economic lyceum 29 "EMLy," is part of the corporate program "School-University-Enterprise." The concept of the program is to create an infrastructure and a system that allows children to start their professional training starting during their study at schools. "School-University-Enterprise" program is in the cooperation of the large factories and enterprises that are always in need of new talented employees.

Rosneft-class is the initial stage of the corporate program "School-University - enterprise," the implementation of which is aimed at ensuring that future oil workers at school received in-depth knowledge on core subjects and were able to enter the leading oil universities of the country in the future. The program of training in a specialized class includes additional classes in mathematics, physics, chemistry and the basics of the oil business. For this purpose, scientific and practical conferences and talent festival "Rosneft lights the stars" are held annually.

## 2.4 Harmony

One of the best educational institutions of the city of Izhevsk is the Municipal Budget Educational Institution "International Educational Complex "Harmony - School №97". The format of the functioning of this educational institution differs considerably from the majority of the visited schools. First of all, the funds for the development of infrastructure "The Harmony" are received mainly not from the municipal budget. The school has a reasonably extensive economy, including a cafe-dining room, receiving visitors during lunch hours; also a driving school is organized for everyone based on the school. Thanks to the economic activities that bring profit, the school administration has the opportunity to carry out major reconstruction of buildings, expanding the complex, as well as to introduce new educational practices.

## 2.5 Gymnasium named after Kuzebai Gerd

Due to the constant decline in the number of indigenous people of the Republic – Udmurts, it is essential to preserve the authentic culture, and most importantly, the Udmurt language. Therefore, there is a unique educational institution in the Republic — the Udmurt State National Gymnasium named after Kuzebai Gerd. It is an educational complex that unites kindergarten, primary, secondary and high schools.

The specifics of working with children in this educational institution is to introduce an ethnocultural component into the learning process. The implementation of this approach begins with the visualization of the elements of culture with the help of space design.

The curricula of the pre-school and the gymnasium itself are aimed at children for whom the Udmurt language is either the mother tongue spoken in the family or the second language.

## 2.6 Academpark

Academpark is a network of five schools of the industrial district of Izhevsk, which have united into one network. The idea of this network is to develop a single profile direction based on each school of the network. All students from five schools of the network can choose any direction presented by all the school of the network while remaining a student of his school. Students study their basic subjects in their home school, but subjects of the chosen profile are held in the school which is responsible for the student's chosen direction.

The prerequisites for the creation of this project were many systemic problems. The main issue is, of course, the lack of financial resources in schools, which made it impossible to hire a large number of highly qualified persons. In addition, the lack of funds led to the lack of necessary equipment in schools: for example, a quality laboratory in physics, chemistry or technology. In the Academpark project, this problem is solved through the distribution of responsibilities between schools: the school invests all funds in one educational direction, without spending money on other areas.

## 3. Discussion & Conclusion

From the analysis of the data obtained during the interview, several conclusions can be drawn.

First of all, the approach to the Giftedness only from the aspect of subject competitions (known in Russia as "discipline olympiads") is out of date and has to be re-considered by the professional community. Productive and relevant approaches to work with the talented children include multi-disciplinarity, project-oriented activities and the tasks dedicated to developing soft skills. But there are a lot of problems also.

One of most essential is a problem of competition between schools for the best students: Olympiads, potential medalists. In this regard, the exchange of successful practices with gifted children is complicated, and this is a point that hinders educational progress. The practice of experience exchange between teachers shows good results in the framework of the network project "Academpark."

Today financing of educational organizations is one of the primary problems on the way of development of education in Russia [8]. The administration of schools solves this problem on their own. We have identified several practices for solving this problem, which seem to us thriving:

- submission of educational grants that can be obtained from the Ministry of education of the Russian Federation;
- organization of business, for example, the opening of a driving school and a café-dining based on the school;
- a clear division of responsibilities between several schools, so that each school invests the bulk of its budget in the development of one direction: improving the laboratory and invites staff, highly qualified in this direction.

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