DIAGNOSTIC AND CORRECTIVE MONITORING OF EDUCATIONAL RESULTS OF PRIMARY CLASS STUDENTS

Yuldoshev Farkhod
Jizzakh state pedagogy university teacher
https://doi.org/10.5281/zenodo.7234428

Abstract. *The article describes the issues of diagnosis and correction of educational results of primary school students. Also, the author tried to analyze the situation of the issue in practice and gave his opinion on the full manifestation of didactic principles of teaching when studying the content and essence of organizing lessons in primary classes.*

Key words: *diagnosis, correction, lesson, organization, teaching, subjects of education, diagnosis, quality of education.*

ДИАГНОСТИЧЕСКИЙ И КОРРЕКЦИОННЫЙ КОНТРОЛЬ УЧЕБНЫХ РЕЗУЛЬТАТОВ УЧАЩИХСЯ НАЧАЛЬНЫХ КЛАССОВ

Аннотация. *В статье рассмотрены вопросы диагностики и коррекции учебных результатов учащихся начальных классов. Также автор попытался проанализировать ситуацию вопроса на практике и высказал свое мнение о полном проявлении дидактических принципов обучения при изучении содержания и сущности организации уроков в начальных классах.*

Ключевые слова: *диагностика, коррекция, урок, организация, обучение, предметы обучения, диагностика, качество обучения.*

INTRODUCTION

In recent years, systematic work has been carried out in the country to improve the quality and efficiency of the educational system, to form modern knowledge and skills of students, to ensure close cooperation and integration between educational systems and the field of science, and to ensure the integrity and continuity of education.

At the same time, the current state of the national education system is a necessary condition for modernizing it based on the requirements of the times, educating young people to be highly educated, physically and spiritually healthy people, increasing the authority of the leaders and pedagogues of educational institutions, and their effective functioning. requires the implementation of consistent measures to create conditions. From this point of view, while primary education is evaluated as a stage of continuous education, it was found that didactic principles of teaching occupy an important place when studying the content and essence of the organization of educational forms in it.

Within the framework of the research, 2 types of test tasks on mathematics, native language, reading subjects and 3 types of test tasks were prepared to determine the level of understanding of the text from the native language and reading.

Part of the test tasks in mathematics were taken from the international assessment TIMSS-2013 (the open block of the international assessment TIMSS-2003 provided on the Internet was used).

As for reading, the test tasks and texts were selected from the PIRLS-2016 international study materials that were allowed to be used. It should be noted that one of the given options, the test tasks based on the text "In search of food" was adapted based on the opinions of practicing teachers, and the remaining 2 options were taken in full. A grammar task included in the

program of the primary class in the subject of the mother tongue was added to the test tasks of all options.

METHOD AND METHODOLOGY

The structure of the tests on this basis has a number of advantages. On the one hand, such an approach provides an opportunity to evaluate the educational achievements of Uzbek students on an international scale, and on the other hand, it helps to identify the strengths and weaknesses of general secondary education state standards and curricula in practice in Uzbekistan.

The schools included in the trial used simple random sampling. The control group was determined by experts based on the data obtained from regions and schools. Schools were randomly selected from this group. A list of schools was prepared and a random selection was made based on the "Generate Random Number" function of the MS EXCEL program.

6037 students of 125 schools of 8 regions were included in the process of monitoring the quality of education at the republic level.

Texts encountered in various life situations were brought to the students' attention. These tests are aimed at determining the level of formation of the current "reading literacy" concept among students. Based on this concept, a primary school student should be able to understand texts written in different styles, reflect on their content, evaluate their content and significance, and express their opinions about what they have read.

The test tasks allow students to understand the content of the text they read, to be able to find the required information from the text, to be able to find the information that is not on the upper layer of the text content, to compare what they have read and texts of different styles, to summarize the events and incidents in them, to describe the content of the text and characters, to evaluate them. directed to check the giving.

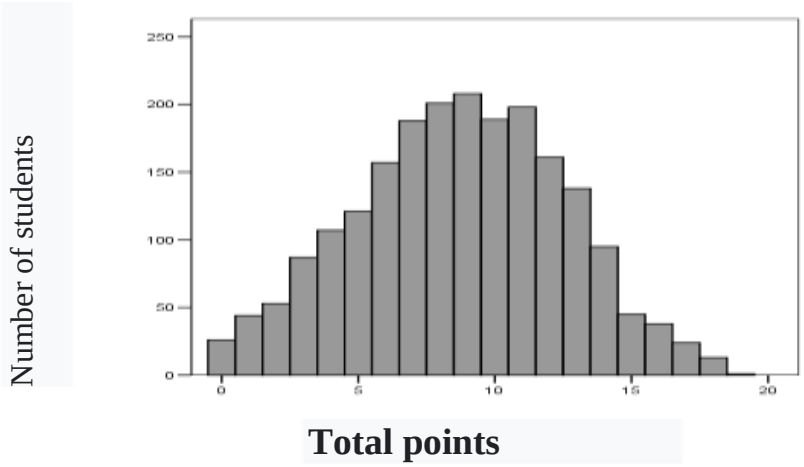
A total of 6,024 students completed the reading tests. 2094 (34.8%) of them solved option 1, 2036 (33.8%) of option 2, 1894 students or 31.4% of option 3.

Mathematics tests cover 4 areas:

1. Conceptual understanding of arithmetic operations (problems 1 and 2 in the first version, problems 1, 4 and 7 in the 2nd version).
2. Performing arithmetic operations (questions 11-14 in options 1 and 2).
3. To perform actions in a simple form (tasks 3-6, 9, 15-19 in option 1, tasks 2, 3, 6, 10, 15-17 and 19 in option 2).
4. Solving problematic issues (questions 7-8, 10, 20 in option 1 and questions 5, 8, 9 and 18 in option 2).

A total of 6037 students took part in the mathematics tests. Of them, 3032 (50.2%) students completed option 1, and 3005 (49.8%) students completed option 2.

Student results for option 1

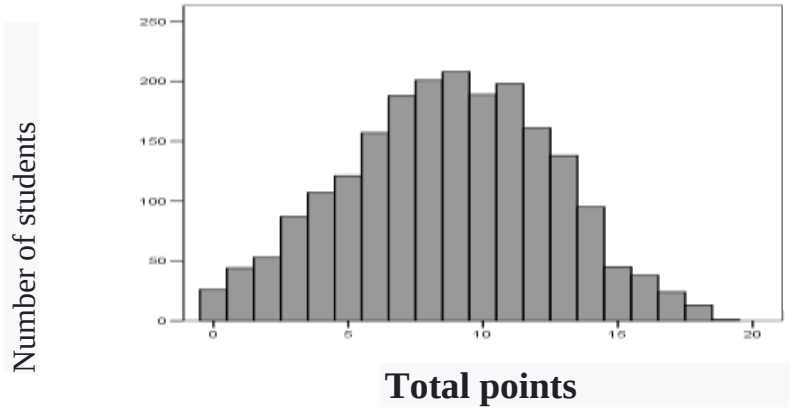


Average number of points - 8,72

Stand. deviation – 3,82

Number of students – 2094

Student results for option 2

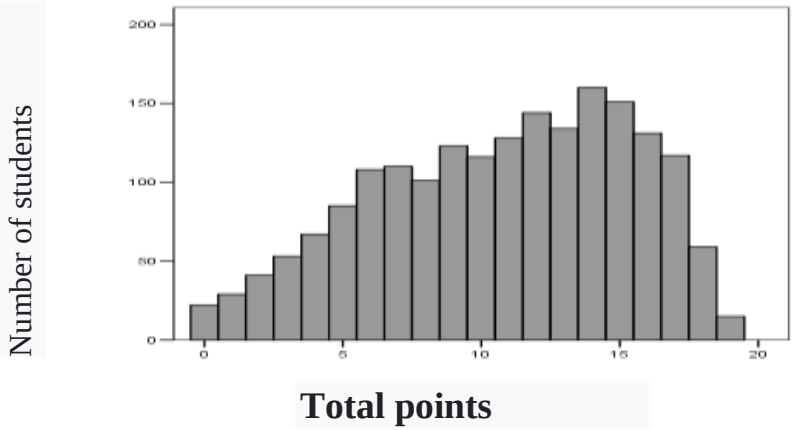


Average number of points- 4,83

Stand. deviation – 2,65

Number of students – 2036

Student results for option 3



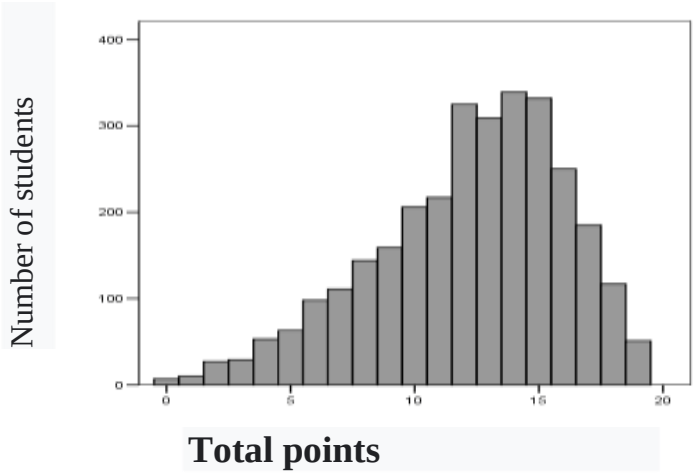
Average number of points- 10,7

Stand. deviation – 4,61

Number of students – 1894

Analysis of students' results in the section of options in mathematics: option 1 was completed by 3032 students, the maximum possible number of points - 19, the number of points achieved - 19, the average number of points - 12.8. standard deviation – 3.8 points. Option 2 was completed by 3,005 students, with the corresponding scores: 20, 20, and 11.42, with a standard deviation of 4.0.

The following histogram shows the results of the students in the subject of mathematics according to option 1:

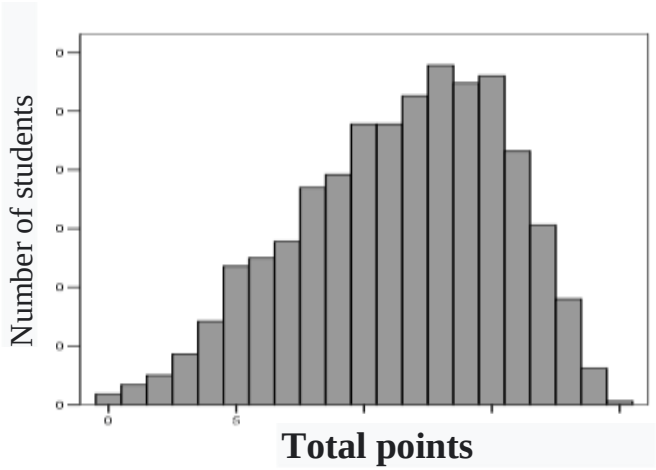


Average number of points- 12,18

Stand. deviation – 3,84

Number of students – 3 032

Results of students in the 2nd option in mathematics



Average number of points- 12,18

Stand. deviation – 3,84

Number of students – 3 032

RESEARCH RESULTS

As can be seen from the above histograms, both reading and mathematics test options differ from each other in all statistical descriptions of the level of difficulty: the maximum number of points in the tests, the average number of points achieved, as well as the distribution of the standard deviation of the points. Therefore, students' knowledge and skills cannot be compared on the basis of test scores (which are directly based on the correct answers collected by the student).

Therefore, scaling was used to objectively evaluate the test results and accurately determine the knowledge and skills of students. The scaling was carried out as follows: the student's result for each test option was standardized by linear transformation and converted to the classical z-scale (z-scale) based on the following formula. Here, z is the score, x is the test score, and SD is the standard deviation of the score.

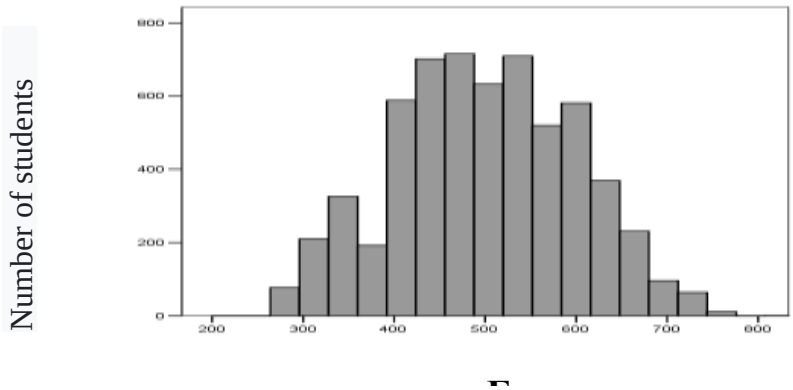
$$z = \frac{x - x_{average}}{SD}$$

Therefore, scaling was used to objectively evaluate the test results and accurately determine the knowledge and skills of students. The scaling was carried out as follows: the student's result for each test option was standardized by linear transformation and converted to the classical z-scale (z-scale) based on the following formula. Here, z is the score, x is the test score, and SD is the standard deviation of the score

T *of the student* =500+100×z *points*

The histograms below show the final distribution of student scores on the scale used in this study

Reading is an academic

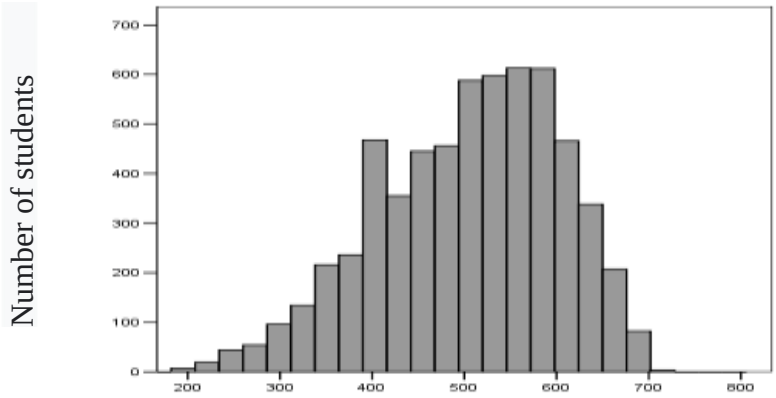


Average score - 500

Stand. deviation – 100

Number of students – 6024

Mathematics subject:



Average score - 500

Stand. deviation – 100

Number of students – 6037

Points

It should be noted that as a result of scaling, the average indicator of students' knowledge and skills in the republic will always be equal to 500 points, regardless of the subject and option.

A number of factors affecting students' knowledge were also studied during the national research. Analysis of the region where the students live showed the following: among the studied regions, in a number of regions, the knowledge and skills of students in the subject of reading were found to be higher than the average national indicator. In particular, the highest indicator was observed as 556.5 points in the knowledge of students of Bukhara region, this indicator was recorded at the level of 523.5 points in Khorezm region, 519.5 points in Tashkent city and 515.2 points in Samarkand region. It was found that the level of knowledge and skills of students of

Syrdarya, Navoi, Kashkadarya and Surkhandarya regions is lower than the average indicator of the republic.

DISCUSION

The PIRLS study is one of the most authoritative primary school studies, with 215,000 students from 40 countries participating in the 2006 study. This research was organized by IEA (International Association for the Evaluation of Educational Achievement).

In PIRLS studies, reading is not evaluated as a student's learning technique, but as a means of acquiring new knowledge for the student's next stage of education and life.

In the process of monitoring the quality of teaching, notebooks containing 3 texts and test questions of this international study were used.

The average score of the students of Uzbekistan was recorded at the level of 7.1 points. This indicator is closer to the average score of the PIRLS-2006 study, the difference is less than half a point. Compared to the highest result, this difference is 2.5 points.

The result of Uzbekistan students on this option is very close to the average score of Norwegian students and is higher than the results of students from Georgia, Macedonia, Trinidad and Tobago, Iran, Indonesia, Kuwait, Qatar, Morocco, North Africa.

The results of option 2 showed that this task was more difficult for all PIRLS-2006 participants. It was recognized in the analysis of the results of the international research that the results of this option are lower than other options in terms of the average score and the highest score indicators. The average score of the PIRLS-2006 study was 4.7 points and the highest score was 6.1.

It was found that the average score of students of our republic is 4.1 points according to this option, which is 0.6 points lower than the average score of PIRLS. Our indicator is 2 points lower than the result of Germany, which is at the top of the list of countries. The results of the students of Uzbekistan are almost equal to the results of the students of Romania, Israel and Moldova.

According to this option, the average score of the students of our republic is higher than the results of the students of Georgia, Trinidad and Tobago, Macedonia, Indonesia, Iran, North Africa, Kuwait, Qatar, Morocco.

The difference between the average score of the students of Norway, Spain, Belgium and Iceland, which ranks higher than Uzbekistan, is not so great.

The results of our research, as well as the results of international research 3- popular scientific text - "Antarctica: The Ice Continent" and "Sarah Viller's letter" showed that the students performed at a higher level.

The highest average score for this option was obtained by Hong Kong students (13 points). The difference between the result shown by our students and this indicator is 2.8 points.

The average score of the students of Uzbekistan was recorded at the level of 9.7 points. This indicator is higher by 2.6 points compared to the results of option 1 and by 5.6 points compared to the indicator of option 2.

The average score of the PIRLS-2016 study is 10.2 points, which is 0.5 points more than the average score of the students of our republic.

It should be noted that the results of the national study of student achievement should be analyzed based on a completely different approach. In this, not only the level of knowledge and skills of the students is determined, but also the exact reasons of the results are shown. That is, a

number of factors related to student knowledge were studied and their impact on student knowledge was analyzed. It was shown that the results of the test are directly related to the region where the student is studying, where the school is located (village/city), and the gender of the student (boy/girl). It was also shown that the test results were related to the characteristics of the student's family.

The results of the conducted test showed that students of mathematics have a high level of conceptual understanding of mathematical operations and performing arithmetical operations. That is, because these problems and examples are encountered in the students' daily lessons, they have achieved high results due to the fact that they are given many times in the textbooks.

In order to eliminate the shortcomings identified based on the monitoring results, the following actions are required:

Changes have been made to the content of all academic subjects while preserving positive national traditions and approaches in the educational system. That is, by shortening the content of existing academic (theoretical knowledge) in subjects, developing the creative abilities of more students and forming competencies in them;

- Include more practical exercises in curricula and textbooks;
- Paying more attention to issues of student personality development in the organization of the educational process, wide use of educational technology focused on the student personality in the course of teaching lessons;
- to be able to apply the knowledge acquired in various life situations in accordance with the requirements of educational standards - introduction of competences;
- to acquaint students with life events and different opinions expressed in relation to different directions in the field of art;
- Radically changing the relationship between the teacher and the student - introduction of educational technologies focused on the personality of the student;
- Development of students' research, design and communicative thinking skills, creative approach to finding solutions to various life situations by means of academic subjects;
- Organization of systematic training for heads of regional monitoring departments and methodologists on organization and conduct of the monitoring process;
- Delivery of monitoring results to all regional monitoring departments and district (city) monitoring sectors and all schools, and preparation of a series of articles for mass media.

After the implementation of the above corrective works, monitoring of the quality of teaching was carried out as a result of formative experimental work. The level of knowledge of students was evaluated in the international scale system with 500 points and standard deviation of 100 points. Based on this scale, the students' knowledge level was 488 points, and in 2020, as a result of the formative test, it was 511 points.

Thus, for the development of the country, the formation of the necessary skills and knowledge in children from the elementary grades is of great importance in the preparation of a new generation of young people with high intellectual and spiritual potential.

There is a need to use pedagogical diagnostic methods and national diagnostic systems along with international assessment programs, which will serve to improve the quality of education in the future.

REFERENCES

1. Abdullaeva Sh.A. Pedagogik diagnostika.-Toshkent: Universitet, 2019.-310 b.
2. Asadov Y.M., Turdiev N., Akbarova S., Temirov S., Babadjanov S. Uquvchilarda kompetentsiyalarning shakllanganligini tashxislash va korreksiyalash metodikasi.-Toshkent: Qori Niyoziy nomidagi O‘ZPFITI bosmaxonasi, 2016.-158 b.
3. Zaripov, K. Pedagogicheskaya diagnostika v sisteme neprervnogo povsheniya kvalifikatsii uchiteley: avtoref. diss. . d-ra ped.nauk / K.Zaripov.- Tashkent, 1990. 35 s.
4. Ingenkamp K. Pedagogicheskaya diagnostika.- Moskva “Pedagogika”, 1991.
5. Klauer K.S. (Hg) Hand uach der Padageg ischen Diagnostic. Dusseldorf: Schawann, 1978.
6. J.G.Yuldoshev, M.K.Shirinov, F.I.Ochilov Pedagogik diagnostika Uquv-metodik qollanma. Toshkent-2014 – 96 b.