

**Quality of Education in Romania. Case Study - School Results**

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**Abstract**

Education is an important area of training the individual's personality for a better individual life, contributes to the well-being of society by developing a set of skills that can be applied throughout life, can trigger the emergence of innovative ideas that benefit society as a whole. Lack of education creates problems such as domestic violence, poor health and especially low living standards. That is why without a good education, a better society cannot be formed. The quality of education is given by all the characteristics of the education system. One of the indicators that can highlight the quality of education is represented by the students' school results. Therefore, the emphasis is on students' results and the added value of the school. "Education is increasingly becoming a public service, a provider of quality, which is evaluated and self-evaluated as an organization, based on standards and whose management must ensure the satisfaction of customer requirements, in terms of efficiency and maximizing added value ( Preda & Diaconescu, 2013, p.5). Quality in the educational environment is a mirror of performance in knowledge-based educational institutions that tend to be compatible with education systems around the world. And lack of education is a root cause of poverty.

**Keywords:** Quality, school results, education, reform, curriculum

**I. Introduction**

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Quality in education is a topic of great interest in recent years, and especially in the current context in which the whole of humanity is facing a series of changes due to the COVID-19 pandemic. The quality of education depends on the external and internal factors of the educational system. In the twentieth century, with the expansion of the school, the significant growth of public education and the gradual development of private education, various positions are noted, such as: pedagogical optimism focused on trust in education as a determining factor for success. , but also the concern about the major deficiencies observed in education systems, raising important questions about the quality of services. The present scientific approach wants to highlight the level of quality of education in Romania related to the school results of students in national and international tests.

## **2. Literature review**

The first comments on training-based education and skills development took place in the 1960s, but in 1989 the need for a reform of the education system was first discussed. The policies proposed the design of a new systemic and operational paradigm model actionable in education aiming at a set of measures, programs, specialized institutions designed to bring changes in the education system and the education process, in order to increase the quality in education. In Romania, the subject is reached at a distance of almost 40 years, with the reform of European education policy, at the proposal of the European Commission.

„The projections on the reform of education in Romania have considered reforming the system-wide administrative reform – reform - and process-level education – the curricular reform. The stages of reform in the education policy (Tacea, Crișan, 2007) are delineated into four periods: reparative phase (1990-1993), preparatory curriculum-wide stage (1993-1997), own reform of the curriculum stage (1997-2000) and the major changes at the system level and the education process started in 2001 and continues today”( Anghel, 2016, pp.22-29).

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*"The quality of education is the set of characteristics of a study program and its provider, through which the expectations of the beneficiaries are met, as well as the quality standards" (Education Quality Law).*

Quality education is a current concern of any educational system. Reducing the gap between what the education system is and what it wants to be, reconciling the fundamental values of the school with the interests of the community, mobilizing all the necessary resources for the school, transforming the objectives into school results are challenges for education specialists. The quality of education associated with the achievement of educational objectives whose performance indicators are represented by the students' results has become insufficient because the school results can no longer prove their social and professional efficiency. In fact, experts warn about the high rate of perishability of knowledge transmitted in the instructional-educational process.

The implementation of the economic concept of quality focused on the client generated "the opening of many school systems to the needs, interests and expectations of the beneficiaries of educational services" (Iosifescu, 2007, p.10). In this context, to the internal efficiency is added the "external efficiency of education" which can be defined in terms of adaptability of the education system to the requirements of the community and economic organizations, thus generating relations of the educational institution with the external environment (Iosifescu, 2007, p.10).

For an education system to perform, it must provide a high quality service to society. Quality in education and implicitly performance depends on a number of factors, such as (Commonwealth Quality Standards for Education, 2016):

- Quality of entries (teachers, books, curriculum, etc.)
- Quality of the process (learning experience, classroom interactions, school environment, etc.)
- Quality results (skills developed, not just exam results).
- Competence is defined as the ability to successfully respond to complex requirements in a particular context by mobilizing psychosocial conditions.

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The quality of education at national level is regulated by several normative acts (laws, ordinances and government decisions), and of these the most important are:

1. LAW no. 87/2006, according to it, the aim is to ensure a quality education;
2. H.G. no. 1258/2005, establishes the organization regulation ARACIP;
3. H.G. no. 21/2007, it highlights the Authorization Standards;
4. H.G. no. 22/2007, this normative act aims at the evaluation of the educational institutions.

The concept of quality education can be viewed from a micro and macro perspective (The Commonwealth Education Hub, 2016). At the microeconomic level, specialists have made numerous debates on the issue of the quality of education that focuses on personal development. The results of quality education include: knowledge; skills; attitudes; attributes such as: critical thinking, values, awareness and tolerance. From a macroeconomic point of view, the emphasis is on the links between what a person learns and their influence, the relationship between quality in education and economic development, poverty eradication, political stability, global citizenship and resilience. An education that does not aim at quality can have social and educational implications, among which we mention: increasing the level of illiteracy; increasing the unemployment rate; the decrease of the insertion on the labor market, the lack of qualified workers. Also, the poor results of the education system contribute to a great inequality of opportunities and diminish Romania's long-term growth prospects. Investment in education is relatively low and disadvantaged schools in particular do not receive adequate support. The rate of early leaving of education and training systems remains high.

The quality of education is influenced by three essential factors (Vroeijenstijn 2001): the teacher; content and results; trial. Any educational process must be student-centered and guided by the principles: participation / cooperation and parity / reciprocity in the educator / student relationship. The content of the education must be in line with the aims, objectives and expected results.

The institutions responsible for the quality of education are:

- European institutions: European Commission for Education;

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- National Institutions: ARACIP, ARACIS, Ministry of Education, Research, Youth and Sports;
- Regional / local institutions: CEAC (commission for evaluation and quality assurance), CSI;
- Public-private partnership: The real partners of the school, from the community, are: the family, the institutions of the local authorities, cultural institutions, the police, the health units, NGOs, etc.

Education and training policies gained a new position in the European Union after the adoption of the Lisbon Strategy in 2000, a strategy in which "knowledge" is considered a central asset. One year later, the Member States and the European Commission define a framework for cooperation in the field of education, which was deepened in 2009 through the "Education and Training 2020" program included in the "Europe 2020" strategy.

At the national level, the Romanian Agency for Quality Assurance in Pre-University Education (ARACIP) provides benchmarks that allow schools to verify the validity of the internal performance evaluation.

Subordinated to the Ministry of Education and Scientific Research, ARACIP legitimizes itself by the fact that "it elaborates the reference standards and performance indicators, the institutional evaluation and accreditation methodology, internal quality evaluation manuals, guides of good practices, an annual report on to its own activity, system analyzes on the quality of pre-university education in Romania, recommendations for improving the quality of pre-university education, the code of professional ethics of experts in evaluation and accreditation "(Emergency Ordinance no. 75 of July 12, 2015).

At the regional level, the county school inspectorates contribute to quality management, by:

- Quality control based on national standards, developed by ARACIP
- Monitoring the implementation of national reform policies and programs
- Implementation of quality improvement programs at county level
- Monitoring quality improvement programs at school level;
- Guiding and supporting school units;
- Ensuring the professional development of teachers.

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The Commission for Evaluation and Quality Assurance (CEAC) has the role of realizing the evaluation and quality assurance strategy; to publish the annual internal evaluation report on the quality of education in the respective organization; to submit to the management of the school the proposals for improving the quality of education; and to cooperate with the other “actors” involved.

### **3. Methodology**

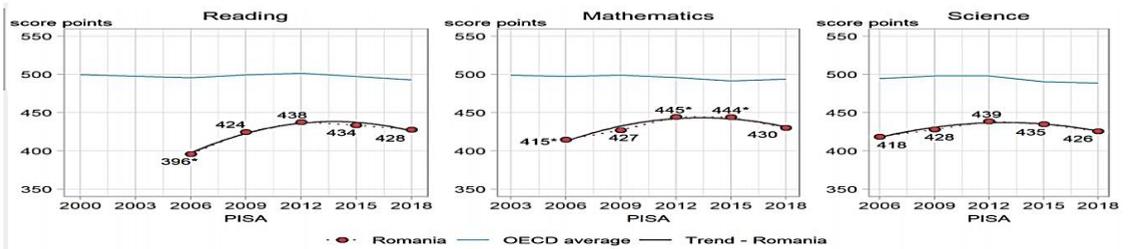
Due to the complexity of quality in education, in the present scientific approach we have stopped our attention to the analysis of the results of the education system, both nationally and internationally. Therefore, the results of the education system are evaluated both regionally and internationally, and based on them, reports, comparisons, situations are made. Thus, the performance represents the results of the educational organization or of the national education system reported to a standard: the results of another school, of an educational system from another country, or with the average of these results (Onicov V., (2009). The present study was based on a descriptive research, having as a research tool the case study (Ristea, A.L. Ioan-Franc, V. Popescu, C. (2007). The case study focuses on the study of school results over time.

### **4. Results**

Romania participates in a series of international studies PISA, PIRLS and TIMSS, and the results of these studies are interpreted in the concrete educational context in Romania and continue to be used in educational policies. Romania participates in the PISA tests, a program initiated by the OECD in 2001. PISA is a standardized international evaluation jointly designed by the participating countries and represents a comprehensive evaluation in the field of education. It assesses 15-year-old students to measure performance in the areas of math, science, and reading / reading. The last PISA evaluation took place in 2018, where it obtained the following results, figure 1 .

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Notes: \* indicates mean-performance estimates that are statistically significantly above or below PISA 2018 estimates for Romania. The blue line indicates the average mean performance across OECD countries with valid data in all PISA assessments. The red dotted line indicates

**Figure 1. Romania's results in PISA tests in 2018**

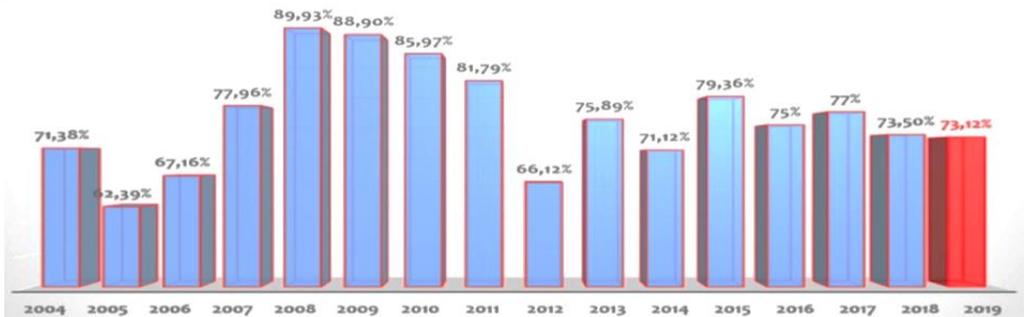
*Source [https://www.oecd.org/pisa/publications/PISA2018\\_CN\\_ROU.pdf](https://www.oecd.org/pisa/publications/PISA2018_CN_ROU.pdf)*

According to this figure above, it is observed that Romania had better results than in 2006, when it participated for the first time in this test, but decreasing compared to the previous year, 2015. Also, referring to the average of the other participating countries, Romania obtained much weaker results in 2018 than in 2015 (OECD (2019)).

The situation registered by Romania for the three areas analyzed by the PISA tests obtained in 2018 is significantly lower than the average of OECD countries. Overall, Romania's score is lower than that of Poland, the Czech Republic and Hungary, Estonia, Slovenia, Latvia, Lithuania, Slovakia and even Serbia. Romania is below the European Union average of an average score of 500, for all three areas analyzed. The domain of reading / reading obtaining an average score of 438, for the field of mathematics obtained an average score of 430, and for sciences the average score was 426. For this reason, Romania ranks 46th, with a score less than 450. Moreover, the average rate of functional illiteracy in Romania thus increased from 39% in 2015 to 44% in 2018 (OECD, 2018).

In addition to the results of national and international studies, the general results obtained by students at the final exams organized at the end of the eighth grade and at the end of high school are major references in the general evaluation of the educational process. The results of the students obtained at the national exams from the end of the 8th grade at the national assessment had a fluctuating evolution, Fig.2.

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**Fig 2. Percentage of averages over 5 in the National Assessment, 8th grade**

*Source: <http://evaluare.edu.ro/2020/rezultate/>*

Romania also participates in TIMSS tests, which take place every four years. TIMSS is coordinated by the International Association for the Evaluation of Educational Performance (IEA) and comparatively analyzes mathematics and science skills (biology, physics, chemistry) among students. In 2019, Romania participated in this important project through a randomized sample of 199 schools, of which a total of 4485 students, 196 principals, 214 mathematics teachers and 609 science teachers answered the TIMSS tests and questionnaires. Romania has placed and continues to place both mathematics and science, below the international average of 500 points, figure 3. In mathematics and science, the scores obtained by Romanian 8th grade students in the TIMSS tests are not have changed significantly in the last twenty years (mathematics: 479 points in 2019, 474 points in 1995; science: 470 points in 2019, 471 points in 1995). The distribution of performance remains a major problem for the Romanian education system. Almost a quarter of our students fail to meet the minimum performance criteria in mathematics and science (University of Bucharest, 2020).

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<b>Matematica</b>		<b>Stiinte</b>	
Country	Average Scale Score	Country	Average Scale Score
<sup>2</sup> Singapore	616 (4.0) ▲	<sup>2</sup> Singapore	608 (3.9) ▲
Chinese Taipei	612 (2.7) ▲	Chinese Taipei	574 (1.9) ▲
Korea, Rep. of	607 (2.8) ▲	Japan	570 (2.1) ▲
Japan	594 (2.7) ▲	Korea, Rep. of	561 (2.1) ▲
<sup>†</sup> Hong Kong SAR	578 (4.1) ▲	<sup>2</sup> Russian Federation	543 (4.2) ▲
<sup>2</sup> Russian Federation	543 (4.5) ▲	Finland	543 (3.1) ▲
Ireland	524 (2.6) ▲	Lithuania	534 (3.0) ▲
Lithuania	520 (2.9) ▲	Hungary	530 (2.6) ▲
<sup>3</sup> Israel	519 (4.3) ▲	Australia	528 (3.2) ▲
Australia	517 (3.8) ▲	Ireland	523 (2.9) ▲
Hungary	517 (2.9) ▲	<sup>†</sup> United States	522 (4.7) ▲
<sup>†</sup> United States	515 (4.8) ▲	<sup>2</sup> Sweden	521 (3.2) ▲
England	515 (5.3) ▲	Portugal	519 (2.9) ▲
Finland	509 (2.6) ▲	England	517 (4.8) ▲
<sup>†</sup> Norway (9)	503 (2.4)	Turkey	515 (3.7) ▲
<sup>2</sup> Sweden	503 (2.5)	<sup>3</sup> Israel	513 (4.2) ▲
Cyprus	501 (1.6)	<sup>†</sup> Hong Kong SAR	504 (5.2)
Portugal	500 (3.2)	Italy	500 (2.6)
<b>TIMSS Scale Centerpoint</b>	<b>500</b>	<b>TIMSS Scale Centerpoint</b>	<b>500</b>
Italy	497 (2.7)	<sup>†</sup> New Zealand	499 (3.5)
Turkey	496 (4.3)	<sup>†</sup> Norway (9)	495 (3.1)
<sup>2</sup> Kazakhstan	488 (3.3) ▼	France	489 (2.7) ▼
France	483 (2.5) ▼	Bahrain	486 (1.9) ▼
<sup>†</sup> New Zealand	482 (3.4) ▼	Cyprus	484 (1.9) ▼
Bahrain	481 (1.7) ▼	<sup>2</sup> Kazakhstan	478 (3.1) ▼
Romania	479 (4.3) ▼	Qatar	475 (4.4) ▼
United Arab Emirates	473 (1.9) ▼	United Arab Emirates	473 (2.2) ▼
<sup>1</sup> Georgia	461 (4.3) ▼	Romania	470 (4.2) ▼
Malaysia	461 (3.2) ▼	Chile	462 (2.9) ▼
Iran, Islamic Rep. of	446 (3.7) ▼	Malaysia	460 (3.5) ▼
<sup>ψ</sup> Qatar	443 (4.0) ▼	Oman	457 (2.9) ▼
<sup>ψ</sup> Chile	441 (2.8) ▼	Jordan	452 (4.7) ▼
Lebanon	429 (2.9) ▼	Iran, Islamic Rep. of	449 (3.6) ▼
<sup>ψ</sup> Jordan	420 (4.3) ▼	<sup>1</sup> Georgia	447 (3.9) ▼
<sup>2 ψ</sup> Egypt	413 (5.2) ▼	Kuwait	444 (5.7) ▼
<sup>ψ</sup> Oman	411 (2.8) ▼	<sup>2</sup> Saudi Arabia	431 (2.6) ▼
<sup>ψ</sup> Kuwait	403 (5.0) ▼	Morocco	394 (2.7) ▼
<sup>2 ψ</sup> Saudi Arabia	394 (2.5) ▼	<sup>2</sup> Egypt	389 (5.4) ▼
<sup>✱</sup> South Africa (9)	389 (2.3) ▼	Lebanon	377 (4.6) ▼
<sup>ψ</sup> Morocco	388 (2.3) ▼	<sup>ψ</sup> South Africa (9)	370 (3.1) ▼

**Figure 3. Romania's results at the TIMSS Tests in 2019**

Source: [https://drive.google.com/file/d/1qq24k7SE5HUaCeWY4qG6FcGNp\\_deSzby/edi](https://drive.google.com/file/d/1qq24k7SE5HUaCeWY4qG6FcGNp_deSzby/edi)

As previously mentioned, Romania also participates in the PIRLS assessment tests, which are addressed to students in grades II, IV and VI and are aimed at the Romanian language and literature subject. PIRLS tests focus on the effectiveness of reading / reading strategies used by students, through the following criteria:

- Identifying and retrieving explicitly formulated information (following specific ideas, searching for definitions of words or phrases, identifying the time or place of a story, identifying the main theme and idea)
- Formulation of simple deductions based on the text read (formulation of the conclusion of some arguments, description of the relations between two characters)
- Interpretation and integration of ideas and information (comparing information in the text, distinguishing the message or topic of the text)

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- Critical approach to the text and personal assessment of the author's content, structure, language use, perspective and specificity (assessing the probability that the described events will take place in reality, determining the author's perspective on the idea of the text).

In 2011, Romania obtained a score of 502, being extremely close to the minimum level of these tests, more precisely, level 500.

At European level, Finland is leading the way in all three types of international testing, which can be an example of good practice for the vast majority of countries.

#### **4. Limits and Discussions**

The following can be identified as research **limitations**:

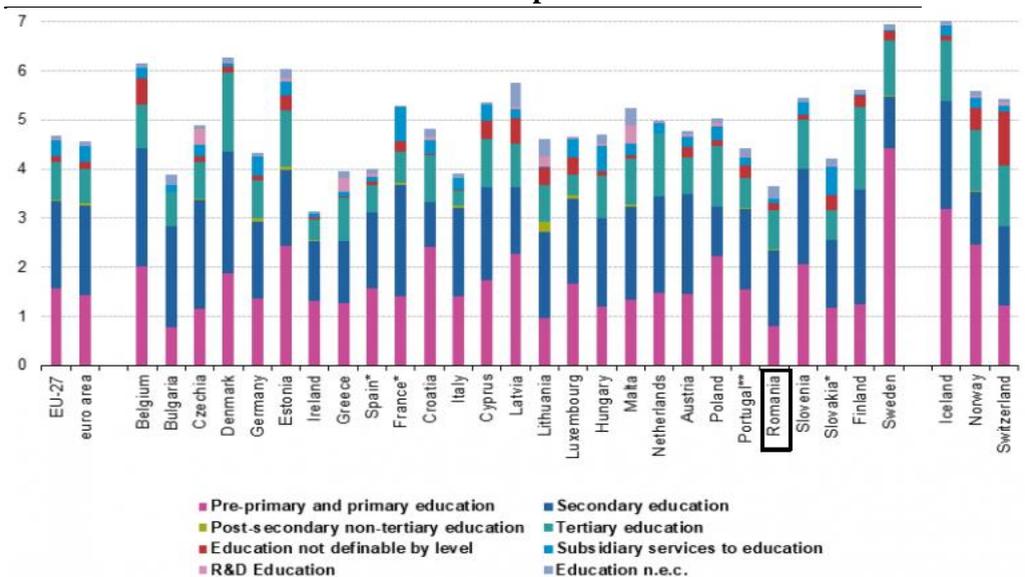
- Lack of required reporting on international PISA, TIMSS, PIRLS tests;

- Due to the Covid-19 pandemic, PISA tests were not performed in 2020;

- In the context of the current situation, the education system has also been affected by the changes imposed by the epidemiological crisis, which leads to a consequence of declining student achievement.

It is obvious that the functioning of the education system also depends on the role that each state assumes, more precisely, on the importance that the state attaches to education. Over time, the economic and political importance of education has increased significantly and this is seen in the contribution of some countries in the world in terms of education spending. Regarding the budgetary funds for education, the average of the European Union is about 4.9%, and Romania, in the last 20 years, has consistently occupied the last place in the European Union in terms of public funds allocated for education, as it has provided funds of about 3-3.5% of GDP figure 4.

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**Figure 4. Total public administration expenditures for education, 2019 (% of GDP)**

**Source:** Eurostat (*gov\_10a\_exp*)

In order to define a quality school, we have to go through everything: the school climate, the physical environment, the curriculum, the relations between teachers, students and the community, etc. Quality school indicators appear in each lesson, auxiliary material, methodical activity, meeting with parents, aspect of a recreation, discussion in the chancellery between teachers, meeting between the principal and local authorities; they can be observed in the process of organizing a teachers' council or in any informal discussion between teachers and students in the school hallways. In this way, a "quality school" aims at a set of factors, not just a lesson, a program, a class or a teacher.

Intervention strategies - responsibilities and responsibilities for increasing the quality of education should take into account the following key factors:

- Teachers: continuous training; adequacy to the needs of students and the community; didactic activity in accordance with the normative documents and based on a student-centered methodology; lifelong learning, professional and personal development; evaluation and self-evaluation.

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- Students can contribute by: lifelong learning; active and responsible involvement in one's own education; participation in school life.
- Parents, community, local authorities, can contribute by: participating in school management; active and responsible involvement in school life; ensuring the resources and conditions for a quality education.
- School management contributes to quality assurance and management by: leading institutional development processes; ensuring the external and internal communication of the school institution; ensuring the resources, the logistical base and the conditions for a quality education.

## **Conclusions**

Quality in education is a complex of principles and practices that cross the entire educational environment, in all its components, aimed at obtaining superior results, compared to standards and to meet the needs and expectations of education beneficiaries. Quality and excellence are two vital concepts in the information society, the premise of any education system in any state in the world. An effective education system must be characterized by a high level of quality. It must also have the capacity to prepare graduates to become globally competitive human resources, and this is a key condition for ensuring a prosperous future for any nation. Quality determines performance. Poor quality causes educational failure which is reflected in high costs to society. Lack of education, implicitly of those who attend schools, limits the ability to produce, grow and innovate.

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