

Evaluation Indicators of the Algerian Education System - An analytical study -**مؤشرات تقييم النظام التربوي الجزائري - دراسة تحليلية -****Dr. BEDOUI Samiya¹, Dr. MANSOURI Houari²**¹ National Institute for Educational Research in Education (Algeria), etd_bedoui@esc-alger.dz² University of Ahmed Draia Adrar (Algeria), sayah2013@yahoo.fr**Received:** 07/11/2022**Accepted:** 28/12/2022**Published:** 31/12/2022**Abstract**

The educational indicators aim to develop an overall image of the education system through a precise description of the different elements of the education system (inputs, functioning, outputs), and to highlight the positive and negative aspects in order to allow the development of appropriate solutions. To fill the gaps, make the appropriate pedagogical decision and build a solid strategy.

Through this article, we attempt to evaluate the Algerian education system by focusing on the primary cycle, based on the analysis of statistics provided by the Ministry of National Education for the start of the 2020/2021 school year. Based on the reference indicators for the evaluation of the Algerian education system prepared by UNICEF and the National Institute for Educational Research in Education 2012.

Keywords: Educational Indicators, Algerian Education System, Primary cycle, Statistics, UNICEF.

JEL Classification Codes: 121, 123

ملخص:

تهدف المؤشرات التربوية إلى وضع صورة شاملة للمنظومة التربوية من خلال الوصف الدقيق لمختلف عناصر النظام التربوي (مدخلات، عمليات، ومخرجات)، وإبراز الجوانب الايجابية والسلبية بما يتيح وضع الحلول المناسبة لمعالجة نواحي القصور، واتخاذ القرار التربوي المناسب وبناء استراتيجية سليمة.

نحاول من خلال هذا المقال تقييم النظام التربوي الجزائري بالتركيز على المرحلة الابتدائية، انطلاقا من تحليل الإحصاءات المقدمة من وزارة التربية الوطنية للموسم الدراسي 2020/2021، واستنادا لمؤشرات المرجع الخاص بتقييم النظام التربوي الجزائري المنجز من قبل اليونيسف والمعهد الوطني للبحث في التربية سنة 2012.

الكلمات المفتاحية: المؤشرات التربوية، النظام التربوي الجزائري، المرحلة الابتدائية، إحصاءات اليونيسف

تصنيفات JEL: 121، 123

INTRODUCTION

Education is one of the main needs of all societies, because it is the tool of society to achieve legitimate construction goals, and therefore, it is a support for other social systems. It is not possible to talk about economic, social and cultural changes outside the role of the school, because it builds the skills required by the processes of change and thus guarantees the desired degree of success, and taking into account the importance of the education sector in any country, its achievements must meet the needs of the present and meet the challenges of the future.

Also, the rapid development could not have been done without generating several gaps and imbalances, which are mainly due to the growing demand for education, and the accumulation of these imbalances over the years has made the Algerian school n has not kept pace with the various developments that the country has experienced economically, socially, but also politically and culturally.

This inadequacy is explained by the inability of the basic education system to respond effectively to the major challenges imposed by the unprecedented development of science and technology, and those resulting from the globalization of the education system. Consequently, the Algerian educational system is obliged at each stage of its development to adapt permanently to these developments, and to be able to absorb the results of the social and economic developments that have characterized the country, and the developments regional and international. This is what the Ministry of National Education has been doing since 2003 by adopting new reforms based on a new approach to educational and scientific relations (students - teachers - administration), in addition to the Algerian government's desire to improve school conditions and ensure continuity of development through seminars and forums she indicated the need for a quality approach in the education sector.

The implementation of any education reform requires the existence of effective mechanisms to monitor the evolution of policies and reforms and to identify the positive points and those that require adjustment. These mechanisms, which represent education information systems, also provide a tool for measuring educational success in terms of efficiency and effectiveness, as well as in terms of transparency and justice in educational programs (Foin, Gauthier,2020, P.97) .

Given the importance of the school as a pillar of knowledge and scientific construction in all countries of the world, and for it to lead society towards progress and a better future, it is today, more than ever, in the need to constantly work to improve all the elements of its education system (inputs, processes, outputs).

In order to ensure the existence of effective schools in sustainable development, it is necessary to identify, evaluate and observe the quality of the school, the educational results, the school supplies, and the social support, the relationship between education and economic productivity, and equity in education. Therefore, education policymakers are interested in developing a system of education indicators that provides an honest and periodic picture of the state of education in schools and can provide a stable basis to assess the improvement of education.

Research Problem:

From there, the problem of the study is concentrated on the determination of the most important indicators for the evaluation of the education system in Algeria (inputs, processes, and outputs).

Where the emphasis was placed on the primary stage by analyzing the results of the statistics of the ministry of guardianship for the school season 2020/2021, to answer the following main question: **What are the most important indicators for evaluating the education system in Algeria?**

The importance of research:

The value of study derives from the importance of the school for the educational process and for society. As the school is the mirror that reflects the success or failure of educational systems, it is the executive responsible for the implementation of educational plans and the source of realistic educational development.

Therefore, it is necessary to rely on the evaluation of the education system, which confirms the different benefits that can be obtained by identifying the nature, characteristics, importance, and uses of educational indicators.

Research Objectives: The research objectives are determined as follows:

- Define the most important concepts of education indicators.
- Determine the characteristics of educational indicators.
- Identify the uses and types of educational indicators.
- Presentation and analysis of some pedagogical indicators used in the evaluation of the Algerian education system.

Previous Studied:

1. Javier Velasquez ´ Rodríguez and al, 2022, Multidimensional indicator to measure quality in education, the study is based to identify the factors that directly affect education quality through database and teacher surveys, and on quantification and categorizing of each factor's (extrinsic and intrinsic) importance in influencing education quality. The study showed the relevance of extrinsic factors to improve education quality mainly in the social context, and that variables such as extracurricular activities support the students' integral formation and positively impact their academic performance.
2. A study of Mohamed Ayadi, Abdelali Ben Mbarka, Sourour Ramzi, 2020. Towards a revaluation of the educational systems of the Maghreb countries focus on the evaluation of the education system in the Maghreb countries concluded with three main findings: the weakness of pupils acquisition of knowledge despite the efforts made to generalize access to school, the inefficiency of schools mainly due to the weak style of approach to governance, the inequality in the acquisition of knowledge among the students taking into account the family environment and the lack of initiative in the systems educational
3. Mohammed ben Abdullah Al-Bakr, 2020, Foundations and standards of the total quality system in educational institutions, the researcher tried to develop a systematic framework to support and evaluate the quality of the educational process, by employing the international quality standard (ISO 9002) in the field of education, and applying its elements as criteria for the process of evaluating and measuring the level and effectiveness of quality performance in educational and educational institutions.

4. Tatiana Volosovets and al, 2017, Evaluating the quality of preschool education in Russia, in this study the researchers focused on the evaluation of the quality of educational institutions through three major areas of the pre-school institution, it was proposed to use 55 main indicators in order to design a permanent mechanism of evaluating the quality of pre-school education.
5. Beltagi, Marwa (2015), Financing Higher Education in Egypt: Issues and Suggested Alternative ,provided an economic analysis of the concept of quality of education in order to clarify the determinants of educational quality and formulating a regression model in order to estimate the earnings and the demand functions for schooling in Egypt .It is found that, there is a positive relationship between the earnings of an individual and the quality of education.

Reaserch Methodology:

In this study, we relied on the method of descriptive analysis, presenting the concept and characteristics of educational indicators, as well as their importance and uses, in addition to presenting and analysing a set of educational indicators. Which are used to evaluate the Algerian education system.

1. Defining Quality of education : Definition and Evolution of Concepts

1.1. History of Quality Movement:

The origin of" quality "as a concept is due to the period of industry and business development in the20th century. However, people have always been aware of quality in various areas of life, but with the advent of mechanization-increased attention to quality and quality control.

There are many scholars who have contributed significantly to what we understand today about the concept of 'quality'. Some of them are W. Edwards Deming, Joseph Juran, B. Crosby.

So, it is important to look at the evolution of the concepts in quality:

Table (1): The chronology of quality movement

Pre -1900	Quality as an integral element of craftsmanship
1900-1920	Quality control
1920-1940	Inspection-based quality control
1940-1960	Statistical process control
1960-1980	Quality assurance/total quality control(the quality department)
1980-1990	Total quality management
1990-Present	TQM, Culture of permanent improvement, Quality in the organization

Source: Dr. Sanjaya Mishra, Quality Assurance in Higher Education: An Introduction, NAAC, Jun 2006

1.2.Defining Quality : The concept of quality in education is a variable and relative concept, and because the issue of quality stems from an idea and not from a procedural concept, it cannot be understood through a single definition or approach. This explains why various concepts and approaches are offered in an attempt to reach a common understanding of what quality education is)Mansouri Houari(2021 †.

The glossary of UNESCO CEPES (European Center for Higher Education) emphasizes that "quality" is always relative, situated in a particular time and space, and therefore there is not, and cannot be there an absolute definition of quality.

Quality can be defined as the set of characteristics of an entity that confers on it the ability to satisfy expressed and implicit needs. Entity means what can be described and considered individually as a product, a service, a process, a system, a person, etc. " (ISO 8402).

There are three approaches that define the quality of education:

1.2.1.The first approach: is the distinctive approach of the United Nations Children's Fund (UNICEF)

This approach is learner-centred in that it places learning at the heart of thinking about the quality of education. Quality standards in education relate to four dimensions: (UNICEF, 2009)

- Inclusion and equality: including equal rights for children, respect for diversity and gender equality,

Effectiveness of teaching and learning: including systems to motivate and support teachers, related curricula "associated with life skills" and teaching and learning methods centered on the student.

- Safe, healthy, and productive educational environments: including skills-based safety education, adopting standards for healthy growth, and organizing physical education.

- Participation and alignment in school management: including student and teacher participation, and partnerships .

1.2.2.The second approach: This is the most technical and rational approach based on the input-process-output model inspired by an industrial vision of educational products, which seeks to measure the quality of educational products and the performance of educational systems. (UNESCO, 2002), an amendment was made to the framework of inputs, processes, and outputs where five dimensions of the quality of education have been identified: learner characteristics, learning process Learning, facilitating inputs, results, and context.

1.2.3.The third approach: This approach focuses on the interaction between the different dimensions of education and the consensus among the stakeholders involved and the consensus on what education systems should achieve and how to achieve it. This approach proposes seven conceptual dimensions: effectiveness, efficiency, equity, responsiveness, relevance, reflexivity, and sustainability.(Nikel, Lowe ,2010,p 9).

2. The concept of educational indicators:

These are individual or composite statistics related primarily to the planning of the educational process, as they are useful in diagnosing the nature of the education system through its components - the extent to which these components are interrelated and the extent to which they change with time - this information can be used to judge progress towards a set of goals or standards, or to judge the extent of change in some of the previous results, or to compare certain information from other institutions or 'other countries (Margaret McLaughlin ,2002,P.7).

It is defined by the American Bureau of Education that educational indicators are statistics that measure the current state of the education system or its evolution in the light of the objectives of the system (National Center of Education Statistics, 2005 ,P1.)

Thus, we can conclude that education indicators are statistics, and these statistics provide us with a realistic picture of the state and characteristics of the education system.

2.1. The characteristics of educational indicators:

The term education indicators is often used to describe statistics related to education systems, which contain information about the state or performance of the education system. Therefore, education indicators should be characterized by a set of characteristics, and these characteristics vary and are many according to their purpose. Thomas Wellaghan, Vincent G. Reamey (1996) define the characteristics of educational indicators as follows:

- Educational indicators are a numerical value, which serves to display certain aspects of the educational system in numerical form.
- The specified value of the indicator is applied to a single point or a specific time period.
- Statistics are indicators when there is a criterion or measure by which these statistics are judged.

2.2. Types of educational indicators:

We find that educators, parents, members of society, even leaders of the economy, and the media use educational indicators to compare the performance of schools to each other throughout the school year, either at the local or national level, where educational indicators are used as an initial mechanism to measure the extent to which schools achieve their goals (Department of Education, National Center of Education Statistics, 2005, PP.1,2.).

Educational indicators provide a variety of information to governments, school administrations, those responsible for the educational process, the teacher, parents, and everyone else. Indicators can include different types, such as educational outcomes (example: academic achievement), or focus on school inputs (example: class size quality of teacher performance, teaching processes, student/teacher ratio).(McLaughlin, Margaret J, et.al, Op. Cit., P.11).

2.3.Uses of educational indicators

Educational indicators can be used in multiple uses, but they differ according to their purpose. They can be used in: (Nut and Desmond, 1995,P 267)

- Act as an alert system or provide reasons for the state of the education system.
- Interpret the efficiency of the resources spent in the educational program or the educational system.
- Determine performance over time.
- Comparison of progress.
- Guide the planning process.
- Development of education.

Further, Muhammad Ali (2006) explained in the "Guide to the Formation of Composite Indicators", the uses of educational indicators, as follows:

- It facilitates the process of ranking and evaluating the performance of education systems in countries according to certain criteria using normative values.
- It makes it possible to know the evolution of the performance of the education systems.
- It helps to arouse the interest of the public through a simplified presentation of the performance of the systems and their evolution over time.

3. Analysis of the most important indicators for the evaluation of the education system in Algeria for the academic year 2020/2021

A set of indicators was selected, which was adopted by the Referential for the evaluation of the Algerian education system, prepared by UNICEF and the National Institute for Research in Education:

Table(2) :School structures used at all educational levels for the year: 2020/2021

Total	Secondary Level	Middle school	Primary schools	Preparatory education
335 713	63 184	113 817	141 849	16 864

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

Table(3) :Percentage of use of structures at different levels of education :

Secondary Level	Middle school	Primary schools	Preparatory education
423,40	29,12	33,77	29,67

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

We note through the data on the school structures used during the 2020/2021 season that the percentage of use of the structures in the primary cycle is low compared to the number of structures allocated for this cycle which was estimated at 33.77, while 'in the middle stage the percentage was 29.12, which is a very low percentage, and also in the secondary stages the percentage was 23.40, and this can be explained by not distributing the structures in a regular slot between different residential areas in order to be operated as they should.

Table (4) :The number of teachers at each level of education

Total	Secondary Level	Middle school	Primary schools	Preparatory education
507 748	107 688	170 435	211 523	18 102

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

Table (5):The percentage of supervision at different levels of education

Secondary Level	Middle school	Primary schools	Preparatory education
13,73	19,44	22,64	27,64

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

The objective of the education sector growth plan is not to reach international standards, but at least to reach the student-teacher ratio recorded in Arab countries, which is 22 pupils per teacher in primary education, and 18.5 in the middle stage, and 16.5 in the secondary. During the start of the 2020/2021 school year, it notes that this indicator has achieved the objective set in the context of the reform, which is to reach an average of 22 pupils per teacher in primary and middle school, while at the secondary stage the indicator was low, reaching 13,73.

Table (6):The percentage of girls' participation in different levels of education

Secondary Level	Middle school	Primary schools	Preparatory education	Total
56,79	47,74	48,20	49,46	49,37

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

Table (7):The percentage of parity (girls/boys ratio)

Secondary Level	Middle school	Primary schools	Preparatory education	Total
1,31	0,91	0,93	0,98	0,98

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

The directive law on national education of January 23, 2008, stipulates in its articles 10, 11, and 12 that the State guarantees the right to education to all Algerian women without discrimination based on sex, social or geographical status, and that the right to education is embodied in the generalization of basic education and the guarantee of equal opportunities with regard to the conditions of schooling and the continuation of studies after basic education, and that the Education is compulsory for all girls and boys between the ages of 6 and 16.

In both tables, there is a noticeable deviation in the gender parity index recorded over the two seasons in favor of boys at the primary stage, and it has become more egalitarian at the intermediate stage, whereas the ratio was clearly higher in favor of girls at the primary stage. secondary thanks to the continued success of the girls .

Table (8):Annual student growth (Primary schools):

Annual growth			2021- 2020			2020- 2019		
boys	girls	Total	boys	girls	Total	boys	girls	Total
2,02	3,17	2,57	2 480 931	2 308 659	4 789 590	2 431 701	2 237 716	4 669 417

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

The growth rate represents total enrollment in the first grade of primary education, excluding age, expressed as a percentage of children at the official school entry age of six. This rate measures the capacity of the education system to accommodate all children of primary school age.

Across the data, it can be seen that the growth rate of primary school students grew at a significant rate over two school seasons, reaching 2.57. This clearly shows that the capacities of the education system to accommodate children in the first year of primary school are significant. This rate indicates that among the children enrolled in first grade, there are children who have not yet reached the official school age, and who have been enrolled with age reduction licenses,

Analysis of the data by gender shows that the difference between the rate for girls and boys is not significant. This means that we score too many points, both in the number of girls and in the number of boys.

Table (9): Annual student growth (Middle school)

Annual growth			2021- 2020			2020- 2019		
boys	girls	Total	boys	girls	Total	boys	girls	Total
6,91	5,24	6,10	1 732 067	1 581 966	3 314 033	1 620 188	1 503 247	3 123 435

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

We notice from the results that the student growth rate from 2020 to 2021 reached 6.10% at this stage, which is a low percentage compared to the previous stage. This is because this trip receives students from the primary stage and there is no new registration for students except by transfer from one educational institution to another.

Table (10): Annual student growth (Secondary schools)

Annual growth			2021- 2020			2020- 2019		
boys	girls	Total	boys	girls	Total	boys	girls	Total
20,10	14,88	17,08	638 765	839 506	1 478 271	531 858	730 783	1 262 641

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

We notice from the results that the growth rate of students from 2020 to 2021 reached 17.08% at this stage, which is a high percentage compared to the previous stage.

Table (11): Annual student growth (Middle school)

Annual growth			2021- 2020			2020- 2019		
boys	girls	Total	boys	girls	Total	boys	girls	Total
6,91	5,24	6,10	1 732 067	1 581 966	3 314 033	1 620 188	1 503 247	3 123 435

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

We notice from the results that the student growth rate from 2020 to 2021 reached 6.10% at this stage, which is a low percentage compared to the previous stage. This is because this trip receives students from the primary stage and there is no new registration for students except by transfer from one educational institution to another.

Table(12) :Primary education: Dropout rate by year of study and gender

Third year			Second year			First year		
boys	girls	Total	boys	girls	Total	boys	girls	Total
0.79	0.76	0.78	1.19	0.84	1.02	0.26	0.30	0.28
Fifth year			Fourth year					
boys	girls	Total	boys	girls	Total			
0,23	0,77	0,49	2,61	1,50	2,08			

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

This indicator relates to the measurement of students who drop out of school from grades 1 to 5 of primary education and represents the percentage of students who are enrolled in a particular grade level in a given school year and who drop out. in the next school year. The dropout index, like the repetition index, expresses the number of school dropouts in any

education system. Whatever the reasons that push students to leave school, it deserves attention and investigation, especially when it comes to primary education.

The processing of data on dropout rates shows that dropout rates are almost non-existent throughout the years of primary education. It varies between 0.28% and 2.08%. These data indicate that the education system in general is characterized by significant student retention capacities.

Also, the data does not show a significant difference between the percentages recorded by boys and those recorded by girls.

Table(13): Primary education: Repetition rate by year of study and gender

Third year			Second year			First year		
boys	girls	Total	boys	girls	Total	boys	girls	Total
8,10	3,81	6,06	8,78	4,74	6,85	0,00	0,00	0,00
Fifth year					Fourth year			
boys	girls	Total	boys	girls	Total			
1,26	0,60	0,94	8,66	3,93	6,43			

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

The repetition rate is the percentage of students who are enrolled in a particular level of education in a given academic year and who study at the same level of education in the following academic year. This indicator measures the repetition phenomenon and constitutes a tool for measuring the internal efficiency of a particular school stage.

We note in the table of results that the repetition rate in the first year of primary school is non-existent because of its abolition at the start of the 2010/2009 school year as a pedagogical measure based on the consideration that the phase is the unit base for evaluating in which measures pupils are able to reach the final skills and that the skills targeted for the first phase of primary education (first and second primary years) during which it crystallizes and is not reached until the end of the second year, that is to say, the end of the first phase.

The processing of the results shows that the repetition rate in the first years of primary school is higher than in the last years and gradually decreases since 6.85% is recorded in the second year, while the rate in the fifth year reaches 0, 94%. The results also show that the difference between the rates recorded by boys and those recorded by girls is not significant.

Table (14) : Primary education: Promotion rate by year of study and gender

year 4/3 primary			year 3/2 primary			year 1/2 primary		
boys	girls	Total	boys	girls	Total	boys	girls	Total
91,37	95,77	93,46	90,24	94,72	92,37	101,13	100,95	101,04
5 Primary / 1 Intermediate					year 4/5 primary			
boys	girls	Total	boys	girls	Total			
103,43	101,30	102,40	88,83	94,71	91,61			

Source: Ministry of National Education, Database Sub-Direction, 2020/2021

The processing of data on the transition to primary education shows that the transition rates from one level to the next are generally acceptable, ranging from 101.04 in the second year of primary education, 92.37 in the third year, 93, 46 in the fourth year, 91.61 in the fifth year, and 102.40 in the first year, it is average, and the analysis does not show any significant disparity between boys and girls.

Conclusion:

Given the importance of the school for society as a whole, the vital role it plays in preparing the children of societies, and its contribution to the formation of constructive human cadres who work to move societies forward In light of the changes prevailing in today's world of technological progress, the information revolution and in the light of the globalization system, it is necessary to not only know the performance of this vital educational institution and to what extent it is achieving its objectives, but also to work to determine the position of this school institution among the various schools, whether at local or national level in terms of performance level, and the educational services it offers for support these changes.

All this confirms the need for educational indicators, because educational indicators help to identify the conditions and achievements of schools, and thus reflect the image of the education system as a whole, the extent of the progress that has been made, where the problems and what the strengths and weaknesses are, what helps to overcome these problems and work on strengthening the weaknesses.

Therefore, it is necessary to pay attention to educational indicators at the school level, but rather at the level of the education system as a whole. To obtain this benefit from educational indicators, a system of educational indicators must be developed. This system consists of units and has central and top management. Each unit is represented in the management of each school so that each school A continuously evaluates its performance, and sends a detailed report to the central administration, then this administration determines and compares the performance of all schools, and publishes these indicators for all groups in society, and even works to compare the level of performance of these schools with the performance of schools globally.

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