

## THE SUPPLY OF HIGHER EDUCATION IN ALGERIA, AN INVENTORY ON DYSFUNCTIONS AND REFORM

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**Abstract:** It remains, today, to augment the effectiveness of our system of higher education and research and to attain productive critical mass, in the shortest possible time, in all disciplines the big construction site, for tangible qualitative improvements, is certainly the strengthening of the system LMD, nowadays in stage of general implementation ... » Such was the purposes of the ancient Minister of Advanced Education and scientific research named in the preface of the work accomplished on the occasion of the fifty-year-old of Algerian independence. In effect, the increase of the effectiveness of higher education requires the extension of university network as well as development of its element and its organizational structure; this could therefore be attained only if they adopt reforms and measurements allowing to put right dysfunctions existing in this area.

**Keywords:** Reform LMD, higher education

### L'OFFRE DE L'ENSEIGNEMENT SUPERIEUR EN ALGERIE, UN ETAT DES LIEUX SUR LES DYSFONCTIONNEMENTS ET LES REFORMES

**Résumé :** « Il reste, aujourd'hui, à accroître l'efficacité de notre système d'enseignement supérieur et de recherche et à atteindre, dans les meilleurs délais, la masse critique productive dans toutes les disciplines... » « Le grand chantier, pour des améliorations qualitatives tangibles, est certainement la consolidation du système LMD, actuellement en phase de généralisation... » Tel était les propos de l'ancien ministre de l'enseignement supérieur et de la recherche scientifique cités dans la préface de l'ouvrage réalisé à l'occasion du cinquantenaire de l'indépendance Algérienne. En effet, l'accroissement de l'efficacité de l'enseignement supérieur nécessite l'extension du réseau universitaire ainsi que le développement de sa composante et de sa structure organisationnelle, ceci ne pourrait donc être atteint que si on adopte des réformes et des mesures permettant de remédier aux dysfonctionnements existant dans ce secteur.

**Mots-clés :** Réforme LMD, enseignement supérieur

## Introduction

Characterized by a weak rate of supervision and a mediocrity in facilities, the Algerian offer in higher education saw itself evolving in a dynamic manner, in terms of enrollments students and accompanied also with a realization important infrastructural since independence because of strong and over demanding asks which influenced the university. The present job tries to answer following problems: Higher education in Algeria; what touching dysfunctions the organization and development and which reforms led in the area?

### 1. The dynamic evolution of Algerian higher education

The number of the Algerians taken a census in the ranks of higher education was in 1961 at the level of 1317 students, this modest figure had almost doubled one year after independence and saw itself multiplied by 9.5 less than ten years afterwards. However fifty years after independence, it almost increased by 1000 or (Cf. Higher Education in Algeria, 50 Years at the Service of Development 1962-2019:35)

Picture n°1: Evolution of the enrollments students inscribed from 1962 till 2021

	1962/63	1969/70	1979/80	1989/90	1999/00	2009/10	2020/21
Enrollments students inscribed in a scale	2725	12243	57445	181350	407995	1034313	2077945
Enrollments students inscribed there post a scale	156	317	3965	13967	20846	58975	90617
Total	2881	12560	61410	195317	428841	1093288	2168562

It is necessary to point out that the number of students inscribed in a scale was multiplied by 9 between 1960 and 1970, by 4.5 between 1970 and 1980, by 3 between 1980 and 1990, by 2.25 between 1990 and 2000 and by 2.5 between 2000 and 2010. The number of students was in 2014 a million three hundred thousand students and owed according to the predictions of the ministry of higher education and scientific research to exceed one and a half million in 2015, and can according to the same source probably to attain two and a half millions in 2025<sup>1</sup>, Only the evolution of the number of students seems to be increasing very rapidly because according to Pr Tahar Hadjar, "We went from 3 students per 10,000 inhabitants to nearly 400 students per 10,000 inhabitants in 2017/2018," he specified, indicating that these numbers will increase drastically to reach 2 million in 2024-2025 and 3.5 million by 2030. The problem that arises is that of infrastructure and its development, so we must ask the following question: is there coherence and compatibility between the number of students and the infrastructure that has been built? Regarding pedagogical supervision, the Algerian government has implemented an ambitious program for training trainers. However, the supervision rate, with 52,000 senior teachers in 2014, reached 31%, which means one teacher for every 21 students.

<sup>1</sup> Fiche curie Algérie « Ministère des affaires étrangères et du développement international ambassade de France en Algérie » in collaboration with « Ministère de l'enseignement supérieur et de la recherche scientifique Algérien » 2014/2015 p 1

## 2. Presentation of university infrastructure in Algeria

This progressive evolution has been accompanied by a significant program for the construction of university infrastructure, teaching, scientific research, and socio-academic support. These infrastructures have been launched and built during the last fifty years. The construction of university infrastructure has gone through three major periods, namely: the period of initial achievements; the period of expansion of the university network; the period of maturity of the university network. The period of initial achievements This period lasted from 1962 to 1980. Algeria, since its independence and in order to comply with the principle of proximity, ensured the launch of three major universities, followed by numerous others. These include the University of Science and Technology Houari Boumediene (USTHB) in Bab Ezzouar, Algiers. The Mentouri Brothers University in Constantine and the Mohamed Boudiaf University of Science and Technology in Oran (USTO)<sup>2</sup>. The period of expansion of the university network. From 1980 to 1998, in addition to these achievements, the Emir Abdelkader University of Islamic Sciences in Constantine was established, and this period was also characterized by the addition of 18 university centers. The period of maturity of the university network. This period extends from 1999 to the present day, during which more than 19 new university centers have been established and 24 others have been promoted to the rank of university. Furthermore, as part of the rationalization of governance for certain sites, eight new universities have emerged from this restructuring movement of the university network. This period has also been characterized by the creation of non-university schools called "national higher schools". Finally, it is possible to say that currently, the Algerian university network consists of 106 higher education institutions with different statuses: universities, university centers, and grandes écoles, distributed across the 48 provinces of the country as follows:

- 50 universities
- 13 university centers
- 20 national higher education schools, including (13 in 2008)
- 10 higher schools
- 11 higher teacher training schools
- 2 annexes

## 3. The structural organization of higher education institutions.

The following will be presented: the structure of universities, university centers, and national higher schools.

### 3.1 *Les universités*

The universities are generally organized in the following manner:

- a) A rectorate;
- b) Three or four vice-rectorates which are:
  - Vice-rectorate for undergraduate higher education, continuing education, and diplomas;
  - Vice-rectorate for postgraduate higher education, academic accreditation, and scientific research.
  - Vice-rectorate for external relations, cooperation, events and scientific communication.

<sup>2</sup> Op cit "Higher education in Algeria, 50 years at the service of development" p 38

- Vice-rectorate for development, prospective studies, and guidance. c) A general secretariat responsible for the administrative and financial management of the institution. The universities are governed by a board of directors and a scientific council, both led by a rector. They are also organized into faculties, which are further divided into departments. Additionally, they may also have
- One or several institutes. Finally, the faculties are established by disciplinary domain and the institutes are established by specialties. (MESRS, 2012:12).

### ***3.2 University Centers***

The university centers, for their part, are organized into a General Directorate with three deputy directorates which have the same prerogatives as the vice-rectorships and a general secretariat. The university centers are administered by a board of directors and a scientific council, both of which are led by the director, and are organized in the form of institutes, themselves subdivided into departments. (MESRS, 2012:12)

### ***3.3 National Colleges of Applied Sciences***

The national higher schools are organized in the form of a directorate, with three deputy directorates also endowed with the same functions as the vice-rectorships and a general secretariat. The schools are administered by a board of directors and a scientific council, both led by the director, and they are organized in the form of departments.

## **4 Financing of higher education institutions**

The higher education institutions are public institutions fully funded by the State, but they can also mobilize financial resources for the benefit of students.

### ***4.1 Financial support for students***

The implemented student aid policy takes three forms.:

#### ***-Indirect financial aid***

Every student living more than 50 Km away from the institution has access to the university residence and therefore benefits from indirect financial support for housing, dining, medical and socio-educational assistance. Statistics show that over 50% of students are accommodated by the National Office for University Works (ONOU).

#### ***-Direct financial aid***

The direct financial aids are scholarships given to students whose family resources are limited, however, Algeria currently has 960,958 scholarship students..

#### ***-The Excellence-Major Program***

This program allows the best students to compete for a scholarship in order to study in a foreign country.

#### **4.2 Presentation of the academic staff**

Appointed by ministerial decree, academic staff is composed of four categories:

##### **-Teachers**

University professors supervise master's and doctoral theses, while also carrying a teaching workload of nine hours per week. They are responsible for preparing teaching and research programs, as well as guiding students, coordinating teaching teams, and supervising research teams. They are recruited from associate professors with at least five years of experience, following a recommendation from the national university commission.

##### **-Professors**

The associate professors supervise master's and doctoral theses, they also teach nine hours of weekly courses, and are responsible for preparing teaching and research programs. The associate professors are responsible for guiding students' studies, coordinating teaching teams, and are recruited from confirmed assistant professors holding a university qualification.

##### **-Associate professors**

The lecturers are supposed to give lectures, they also have a teaching load of nine hours per week and are responsible for preparing teaching and research programs, as well as guiding students and coordinating teaching teams. The lecturers are appointed after the advice of the scientific council, which appoints confirmed assistant professors holding a Ph.D. or an equivalent recognized degree as lecturers. It also appoints assistant professors with three years of experience in this position and enrolled in a Ph.D. or a state doctorate program.

##### **-Maîtres-Assistants**

The assistant professors provide a teaching load of 10 to 12 hours per week of tutorials, they participate in the preparation of teaching and research programs, and in student guidance. Assistant professors are recruited through competitive exams among holders of a master's degree or a recognized equivalent diploma. They may be appointed as assistant professors based on qualifications for holders of a doctorate or a recognized equivalent diploma.

#### **4.3 University and scientific research**

The objective of Algeria is to establish a national network that allows for the connection between industry, university, and research structures. This is how the law of April 4, 1999, modified by the law of February 23, 2008, dedicates scientific research and technological development as national priorities. This law even defines the objectives to be achieved and the means to be implemented in order to accomplish them.<sup>3</sup> This is how, in order to achieve these objectives, the state has established research execution structures, composed of over 1000 research laboratories, over 10 research centers, five research units, and three research agencies. These structures must imperatively increase their scientific human potential, which exceeded 28,000 teacher-researchers in 2013. Algeria has even set

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<sup>3</sup> Law No. 08-05 of 16 Safar 1429 corresponding to 23 February 2008 amending and supplementing Law No. 98-11 of 29 Rabie Ethani 1419 corresponding to 22 August 1998 on the Orientation and Programme Law with a five-year projection on scientific research and technological development 1998-2002.

the following sectoral priorities for the next ten years: Improvement of the quality of higher education through the training of high-level executives, education, water, agriculture and food, health, energy, and "Industry, the development of arid and semi-arid regions, and information and communication technologies." "Furthermore, given that the research function has indeed been marginalized, it is currently necessary to rethink the national system for evaluating scientific research activities in order to assert the obligation of results and improve the overall performance of the system."<sup>4</sup> However, the initial analyses on the implementation of the law of February 23, 2008, have shown that, despite the efforts made in terms of research support, the country has not been able to overcome the situation of being an importer of goods, technologies, services, know-how, and scientific culture. This is why the State aims to increase the share of gross domestic product (GDP) allocated to scientific research and technological development expenses to reach 1%.<sup>4</sup>

## **5. The university and its integration with its environment**

One of the main objectives of the reforms that the Algerian university has experienced is to equip it with the ability to integrate with its environment by allowing it to work in cooperation with companies, and of course, with its international environment.

### ***5.1 University-business cooperation***

The reform aims to position the university at the center of the country's economic development by ensuring the production and dissemination of knowledge, mastery of technology, promotion of research and development, as well as the training of the underlying human resources. Therefore, the university will have to offer educational programs that meet the needs of companies in terms of skilled and competent workforce, which will enhance the role of the university in professional integration, as well as the production of employable resources.

### ***5.2 International cooperation***

Research activities are often undertaken in collaboration with multiple research teams from different countries, regardless of their affiliations (public or private organizations). However, given the strategic importance of human resources in higher education and scientific research, the Ministry of Higher Education and Scientific Research has initiated a reflection on this issue by identifying the following priorities: cooperation based on a partnership with sharing of results and expenses, involving researchers of the same level of competence; definition of major cooperation projects with scientific, technological, and socio-economic impact; training of trainers and researchers in relation to national priorities; development of scientific services with Algerian embassies; exploitation of opportunities offered by conventions and treaties to which Algeria has adhered; creation of a technological space open to foreign partners; creation of joint doctoral schools; creation of integrated universities combining education and research; utilization of opportunities for multilateral cooperation, particularly with the European Union.

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<sup>4</sup> Tempus op cite p 15

### **5.3 The needs, challenges and trends of Algerian universities**

The Algerian university is currently facing the challenge of reconciling the requirements of democratizing access to higher education and the need for quality education in a rapidly changing world. This is due to the emergence of the knowledge and information society, globalization of the economy, and expansion of knowledge. In this regard, the university is facing a strategic challenge, which is the training of a sufficient number of teachers with the necessary quality to support the increasing number of students. The challenge facing the Algerian university requires a shift from an administrative and bureaucratic management approach to a governance-based management approach. This necessitates the establishment of an effective and high-quality training and research system to address the concerns of higher education and scientific research. As observed, the Algerian government has made significant efforts in recent years to expand the university network and train hundreds of thousands of professionals. However, these efforts must continue to achieve the expected goals both quantitatively and qualitatively. Therefore, efforts must be made in terms of management and strengthening of human resources by establishing an attractive training and

## **6 Higher Education Reforms in Algeria**

Algeria has adopted three main reforms since independence in order to address the various dysfunctions that the university had experienced, which would allow it to meet the expectations of society and integrate into the international higher education system. These reforms can be listed chronologically as follows: the reform of university management under the Higher Education Orientation Law of 17/08/1998, which was implemented in 2003; the reform of higher education adopted in 2002, which involves the introduction of the new LMD system; the specific status of teachers; these reforms generally affect the three main direct stakeholders of the Algerian university system: teachers, students, and administration. (Zineddine Berrouche and Youcef Berkane, 2007:2).

### **6.1 The Why of the Reforms**

As it has already been presented in the first section, there are many elements that testify to the remarkable quantitative evolution that the higher education system has experienced since independence to the present day, whether it be in terms of the expansion of the university network, the number of students, or even in terms of management and administrative organization. Such rapid growth could not materialize without being accompanied by a number of dysfunctions, the main cause of which can be summarized as the considerable pressure from social demand for higher education. The accumulation of these dysfunctions over the years has resulted in the Algerian university operating in mismatch with the profound changes that the country has undergone, whether it be on the economic, social, political, or even cultural level. Unfortunately, the university seems unable to effectively respond to the major challenges imposed by the evolution of science and technology, the advent of globalization, and the development of the communication system. This has made it necessary to adopt new approaches in order to correct the dysfunctions and refocus the education system on the society's top priorities. (MESRS.2007 :2). In order to achieve this objective, a national commission for the reform of the education system (CNRSE) was created. This commission allowed for an objective assessment of the various constraints and corrective actions to be introduced to eventually enable the university to play its role in the accelerated development process that the

country has committed to. In light of these recommendations, the Council of Ministers on April 30, 2002 adopted one of the main axes of the short, medium, and long-term action program, set within the framework of the ten-year strategy for the development of the sector for the period 2004/2013. This program focused on the development and implementation of a comprehensive and profound reform of higher education, with the first step being the establishment of a new architecture for education, accompanied by an update and upgrading of various educational programs as well as a reorganization of educational management.

## **6.2 The main dysfunctions of the old university system**

The former university system was characterized by several dysfunctions, whether at the structural and organizational level of institutions or at the pedagogical and scientific level of the courses offered. These dysfunctions can be summarized in the following points.

### *-In terms of reception, orientation and progression of students*

Based on a centralised guidance system, access to university has several disadvantages, since it led to legitimate frustration and led to high failure rates as well as a prolonged stay of students, similarly, the training offer at the entrance to the university was not in line with the different series of the Baccalaureate, as a result the mode of progression was rigid and generated a significant loss, aggravated by the negative effects of student reorientations, most often leading to academic failures. In addition, the evaluation system was ineffective, which severely hampered the effective implementation of the educational programmes.

### *-In terms of architecture and management of courses*

It should be noted that the old university system had a tubular training architecture as well as a set of compartmentalized training paths, which made it unlikely to make bridges from one training to another. As far as time management is concerned, the only thing we can say is that it lacked rationality due to the restrictive volume of hours and the assignment of multiple and staggered exams, which penalized both the personal work of the students and the time allocated to the teachers.

### *-In terms of diplomas, supervision and professional qualifications*

The ratio of teachers was too inadequate, i.e. the number of teachers was too low in relation to the number of students, this was due to two main reasons, namely: low productivity of training in graduation positions; the large exodus of teacher-researchers. The old system offered a short-cycle education that was devalued and unattractive to the labour market, which made the university unable to meet the objectives initially assigned to it, i.e. the training of middle managers due to a lack of status, resources and outlets clearly expressed by the economic actors. The training courses were mono-disciplinary and did not promote the acquisition of a general culture and diversified training, which sanctioned open-mindedness and adaptability in professional life. Finally, and in view of all these observations, it seems obvious that it was essential to carry out reforms affecting both: the architecture of the courses, the pedagogical content of the different curricula, the pedagogical organization, the modes of orientation, evaluation and progression of students, the organization and management of the various pedagogical and research structures.



### 6.3 The Objectives of University Reforms

The awareness of the dysfunctions that the university system had experienced made it necessary and urgent to bring the Algerian university out of the crisis it was going through in the pre-reform era, it was therefore necessary to provide it with the pedagogical, scientific, human, material and structural means likely to allow it to meet the demands of society and to integrate into the international system of higher education. It is therefore necessary to implement a comprehensive and in-depth reform of Algerian higher education in order to correct the various dysfunctions encountered, whether at the level of management or at the level of the university's performance and performance. Thus, and while maintaining the public character of higher education, these adopted reforms must reaffirm the vision of the missions devolved to the Algerian university and which can be summarized as follows: The university should first and foremost provide quality education in order to satisfy the social demand for higher education, it should also achieve a real adequacy with the socio-economic environment by developing all possible interactions with the world around it, and it should also be more open to the evolution of science in general and technology in particular. At the same time, the university should encourage and diversify international cooperation and lay the foundations for good governance based on participation and consultation. To this end, the Algerian university had adopted reforms based on the following axes:

- The provision of quality training for better professional integration.
- Lifelong learning for all;
- Autonomy of academic institutions;
- And the opening of the university to the world.
- This is how the LMD reform, articulated on three levels of training:
  - Bachelor's degree: as a first cycle at Bac + 3;
  - Master's degree: as a second cycle at Bac + 5;
  - PhD: as a third cycle at Bac + 8,
- Came in order to meet these objectives.

### Conclusion

The offer of higher education in Algeria has always attracted the attention of those in charge since independence to the present day, which explains the efforts made in the evolution in terms of the number and quality of infrastructures, as well as the human, financial and material resources made available to this sector. It is for this reason that several reforms have been deployed in Algeria with the aim of improving the quality of higher education. It remains to be seen whether the objectives for which the reforms were adopted are achieved or not, only a real evaluation of the LMD system could provide some answers, because according to some readings, such as the vision of Professor Mehana Abdeslam (Faculties of Physics, USTHB, Algiers) in 2015, i.e. 10 years after the adoption of the new system, the LMD has several problems that hinder its implementation, while others claim that the LMD is an unseemly experience, badly lived and incomplete, should we then break with this new system or on the contrary continue and try to correct where we are less efficient?

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