

**Government policies on the high composition between reality and hope - Theoretical study**

السياسات الحكومية الخاصة بالتكوين العالي بين الواقع والمأمول - دراسة نظرية

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Receipt date :24/12/2023

Review Date :21/04/2024

Accepted date: 30/05/2024

- **Abstract:** This study aims to analyze government policies concerning universities in Algeria, focusing on recent strategies such as digital transformation, the introduction of new academic programs like seawater desalination and green hydrogen, and the emphasis on medical sciences training. Additionally, it explores amendments to training programs, including the integration of English language instruction across disciplines and the expansion of university facilities. These initiatives aim to enhance the academic reputation and global visibility of Algerian universities, particularly amidst a significant surge in scientific advancements and research worldwide. The study found that academic mobility as a new strategy in the university contributes to the valorisation of the Algerian student's path and his integration with the cultures and traditions that abound in the Algerian university, the digital transformation of the university contributes to its effectiveness and adaptation to global requirements, and enables the elimination of negative manifestations, and the strategy of opening university facilities, especially in the night period, such as libraries, business incubators and research laboratories, contributes effectively to increasing scientific achievement. The inclusion of the English language in scientific research also contributes to increasing the acquisition of new skills and access to scientific research and studies, it is a strategy that emphasises the government's endeavour to ensure the quality and sustainability of the university's presence in international forums. The strategy of opening new configurations contributes to strengthening the country's economy, linking the university to its social and economic surroundings and making it an active pole in economic and social development.

-**Keywords:** university, government policies, digital transformation, academic programs, green hydrogen.

- الملخص: تهدف هذه الدراسة إلى تبيان بعض السياسات الحكومية الخاصة بالتكوين العالي في الجزائر، وهي قراءة تحليلية في بعض الإستراتيجيات الأخيرة المتعلقة بالجامعة كإستراتيجية التحول الرقمي (الرقمنة)،

واستحداث عروض تكوين جديدة كتحلية مياه البحر والهيدروجين الأخضر، وتعزيز التكوين في العلوم الطبية وتعديلات مرتبطة ببرامج التكوين كإدراج اللغة الإنجليزية وتعميمها على جميع التخصصات وتمديد فتح مرافق مؤسسات التعليم العالي، لتحقيق السمعة الأكاديمية للجامعة الجزائرية وتحسين مرئيتها عالمياً، خاصة وأن العالم يعرف طفرة نوعية في الاكتشافات والبحوث العلمية، وتوصلت الدراسة إلى أن الحركة الأكاديمية كاستراتيجية جديدة في الجامعة تساهم في تثمين مسار الطالب الجزائري واندماجه مع الثقافات والتقاليد التي تزخر بها الجامعة الجزائرية، كما أن التحول الرقمي للجامعة يساهم في تحقيق فعاليتها وتكيفها مع المتطلبات العالمية، وتمكنها من القضاء على المظاهر السلبية، كما أن استراتيجية فتح المرافق الجامعية خاصة في الفترة الليلية كالمكتبات وحاضنات الأعمال ومخابر البحث يساهم بشكل فعال في زيادة التحصيل العلمي. ويعتبر نسقا يعزز التعاون وإنتاج المعرفة في مجالات متنوعة، كما يساهم إدراج اللغة الإنجليزية في البحث العلمي في زيادة اكتساب المهارات الجديدة والوصول إلى البحوث والدراسات العلمية، فهي استراتيجية تؤكد على سعي الحكومة لضمان جودة واستدامة حضور الجامعة في المحافل الدولية، وتساهم استراتيجية فتح تكوينات جديدة في تعزيز اقتصاد الدولة، وربط الجامعة بمحيطها الاجتماعي والاقتصادي ويجعلها قطباً فاعلاً في التنمية الاقتصادية والاجتماعية.

- الكلمات المفتاحية: الجامعة، السياسات الحكومية، التحول الرقمي، عروض التكوين، الهيدروجين الأخضر.

#### - Introduction:

The role of university education in societal development cannot be overstated, as it serves as a cornerstone for progress across economic, social, cultural, and even military domains. In the Arab world, however, the university sector has faced ideological and political barriers hindering its efficacy. Mohamed Boukshour underscores the necessity for an educational system adaptable to societal changes and responsive to evolving needs.

Amid these challenges, university education and scientific research stand as pivotal drivers of advancement, commanding attention from decision-makers. Recent years have witnessed a surge in societal demand for knowledge enhancement, necessitating effective educational systems fostering creativity, innovation, and scientific prowess.

Algeria's university landscape has evolved significantly since independence, transitioning from a singular institution to a network of approximately 100 universities. Reforms, particularly the adoption of the LMD system, aimed to modernize curricula, align university outputs with market demands, and integrate advanced technological tools. This modernization drive, endorsed by President

Abdelmadjid Tebboune's agenda, seeks to elevate Algerian universities onto the global stage, evident in their recent inclusion in international rankings.

This article scrutinizes Algerian government policies concerning university education and scientific research, posing key questions regarding their alignment with economic and social realities. By addressing these inquiries, the study aims to shed light on the efficacy of current policies and their implications for societal development. The problem of the study is as follows: What are the most important government policies for higher education in Algeria? Do these policies reflect economic and social realities?

### **1- Global and regional variables and their implications for higher education:**

Higher education faces a lot of challenges and changes in the immediate and future, these challenges vary between existing challenges and challenges that are expected to occur, they are still grouped and, on the way, they are formed and crystallized, and other challenges are already taking shape. the most important of these variables are the following: (habib, 2018, p. 48).

#### **1.1- rapid growth in knowledge**

Where the rates of increasing knowledge and science have reached an unprecedented level, until some commented on this era "the age of knowledge explosion", and this increase has become huge to the extent that it is difficult for any individual specialist, no matter how he tried to know all the knowledge produced in his field of specialization, this growth of knowledge has led to many discoveries and inventions, which in turn have brought about a clear change in how we know and indeed in all human life.

#### **1.2- the scientific and technological revolution**

The increasing trend toward the use of machines in different areas of life, the development of micro-machinery technology and complex tools, and high-energy low-cost devices, which are expected to turn economic systems upside down, fundamental changes in the natural and social environment and a revolution in health

care, defense, space invasion and education methods, in addition to the ethical issues raised by the enormous progress in genetic engineering with regard to artificial insemination, organ translocation and banks of human organs, which requires a new review and formulation of laws and concepts, it may even go beyond searching for a new concept of life itself, of consciousness and of conscience.

### **1.3- Rapid Advancements in Communication and Mobility:**

Which made news, ideas and information anywhere accessible to individuals, so that they can know what is happening around them and about others who live about them thousands of miles, and the world today as rightly said a small village thanks to the tremendous progress in the media and satellites.

### **1.4- Swift Transformations in Professions and Labor Markets:**

As a result of dependence on modern technology, where professions and crafts disappeared, and others disappeared in the way of disappearance, and the emergence of new professions and crafts necessitated by the emergence of modern inventions and the emergence of computers.

### **1.5- Economic and commercial freedom**

The spread of the concepts of privatization, market economics and the principles of the private sector, competition and attention to the elements of total quality in all fields, including university education.

### **1.6- increase the ambition of individuals**

The disappearance of the differences between the past and the present, the exit of women into the fields of work and their quest for more education, and their movement toward equality of rights and duties with men.

### **1.7- the high cost of quality university education:**

The reduction of traditional sources of funding for it, especially with the new trend of diminishing State authority, and the call to reduce its role in financing some public services directly to the beneficiary, especially in the field of university education; there have been calls for the state to ease the burden of its education

responsibilities, especially in light of the economic crisis, and allow the private sector to participate in it, even if this participation includes university education.

### **1.8- Global Collaboration (Intersecting Interests):**

Which resulted in the development of systems of means of communication and transport, the disappearance of distances and borders, and the connection of parts of the world to each other, which is reflected directly in international relations, so the emergence of international organizations and groupings and have a role in guiding the world economy.

### **2- Reforming Algeria's University Sector (1962-2003):**

"The University of Algiers is a national achievement and has contributed to the overall development of Algeria, thanks to which thousands of cadres graduate in all fields, and continues to perform its mission in the best way despite the problems it knows." (Zarzour, 2014, p. 64).

Since independence, the university is considered the engine of development and modernization within society, the higher education and scientific research sector in Algeria has witnessed several transformations, including those related to the human element, such as attracting qualified manpower and employing the competencies formed (investment in the human element), including those related to pedagogical structures. all this and others are within the framework of reaching universality and modernizing the university and making it conform to the requirements of the market.

**2.1- The period between 1962-1970:** In this period was established the first Ministry of higher Education and Scientific Research, and this period was characterized by the establishment of universities in the main island cities, where the University of Oran was opened in 1966 and then the University of Constantine in 1967, and then the University of Science and Technology Houari Boumediene in Algiers, University of Science and Technology Mohamed Boudiaf, the aim of the University of Annaba was to expand higher education, partial Arabization and butcher while preserving the

inherited study systems, where the pedagogical system was identical to the French system and consists of the following stages:

- Bachelor's degree and lasts three years in most disciplines and ends with a bachelor's degree.

The Certificate of applied Studies lasts one year and is focused on research methodology along with a simplified thesis for the application of MAGA in theoretical study.

A third-degree doctorate with a duration of at least two years of research in order to complete a scientific dissertation.

- A state doctorate degree may be prepared for up to five years of theoretical or applied research depending on the specialties and interests of researchers.

## **2.2-the First phase (1971-1998)**

This phase can be divided into two periods: (Ouida, 2019, p. 157).

### **2.2-1- Period of 1971-1982:**

The aim of the reform in 1971 was to create the largest number of tires immediately, at the lowest cost and to meet the needs expressed by the employee's sector, so it was necessary to review education and degrees and re-train professors taking into account the qualifications required by the employees sector, the implementation of this reform has made it possible to increase access to higher education and to respond more to the needs of society.

The reform was structured around four main axes: The reformulation of training programs, the organization of a new pedagogy of studies, the expansion of higher education and the total reorganization of university structures.

### **2.2-2-period of 1982-1998:**

The university map was drawn in 1982 in order to strengthen and rationalize the Algerian higher education system, so that its outputs are adapted to the needs of the national economy, and in this regard three main actions were taken:

- Explicit integration of higher education into the overall national planning process, where for the first time precise quantitative targets for higher education have been set with regard to the formation of cadres by branches and sectors of activity.
- Reorganizing and multiplying common logs, in order to improve their quality and develop their own programs.
- Establishment of a system for the orientation of new baccalaureate holders.

### **3- the second phase (1999-2003):**

The most important feature of this period in the course of higher education in Algeria is the promulgation of Directive Law No. 99-05 of April 04, 1999, which contains the basic provisions applicable to the public service of higher education . (Najwa, 2018/2019, p. 157)

The idea of regularity of the LMD emerged from the recommendations of the National Commission for the reform of the higher Education System and the guidelines for the implementation Plan for the reform of higher Education adopted by the Council of Ministers on April 30, 2002.

The trend toward the adoption of the LMD system in Algeria as a comprehensive reform approach, following a combination of internal and external circumstances surrounding the Algerian higher education system, thus the LMD system emerged as a completely new concept and structure.

Two main backgrounds have overlapped in the adoption of the LMDS system by the higher education sector in Algeria:

#### **3.1- Internal background**

The Algerian education system has witnessed a remarkable rise in the demand for higher education, and this demand has been met through the provision of university structures and the increase in the number of professors.

#### **3.2- External background**

Algeria is interested in global changes and developments, especially those in the European Union, due to its geographical proximity and the presence of a

significant Algerian community in the EU countries, among the developments that have attracted its attention are the Bologna process and its programs in the field of higher education. The Bologna process is defined 1999 as a multi-purpose process, it is concerned with establishing a framework that makes qualifications in higher education similar in their degrees and available information, which facilitates comparison of university degrees in the EU countries, and the possibility of adopting comparable quality standards that help to recruit European citizens, and enable European education to compete globally. the desire to enable higher education in Algeria to compete globally.

The efforts of governments did not stop to reform the university system, but the period of 2003-2023 witnessed many improvements in order to make the sector a locomotive of science, and make the university more partnership and effective within the community system so that its outputs, circumstances and economic, social and political transformations such as the harmonization of training offers and other improvements and strategies, in the study of the researcher (Ahmed Zarzour) marked with " the contribution of the university and the operating bodies in the integration of university graduates in the labor market" (2014), it concluded that "diversification in training programs has become more than necessary to respond to the tendencies, desires and incentives of students as well as the requirements of the labor market, which is looking for high quality of higher education outputs."

#### **4-Government strategies for higher training and scientific research 2023/2024:**

The university is an entity or a system that bears the responsibility of providing the community with outputs that are sufficient to contribute to its prosperity and paper, it is an integrative system and an effective economic and social partner. the Algerian Government is therefore seeking to formulate special policies and strategies with a view to the real transition and advancement of higher education in order to keep pace with the current developments in the world.

#### **4.1- Academic mobility:**

One of the objectives of the modernization of the higher education and scientific research sector is to allow the university student to study one or more scales at another university, this was done under a ministerial decision on academic mobility signed by the Minister of higher Education and Scientific Research, No. 207 dated November 01, 2023, which sets the reference guide for academic mobility within the national territory.

Academic mobility is a strategy that "allows the student to carry out part of his or her Bachelor's or Master's degree studies at another university institution in Algeria while remaining registered at the university of origin", as it contributes to the recognition of the different regions of the country and the development of flexibility and independence. to experience a student who seeks different cultures and traditions, to discover other ways of teaching and learning, and to value his academic career with employer (Decision No. 207.01.11. 2023.Reference Guide for Academic Mobility within the National Territory).

On the other hand, it promotes confidence in scientific and knowledge capabilities. And promote the queen of creativity and motivation for renewal and the promotion of thinking to innovation, and the discovery of new knowledge horizons contribute in one way or another to the renaissance of the student.

#### **4.1-1- the expected and achieved results from academic mobility:**

Mobility is a break with the "similarity" to experience a reality that is supposed to ensure a better harmony of identity, and on the other hand it serves purely academic interests as a practice of specialization that does not exist in the original institution whatever the case, and one of its most important results as stated in the reference guide to academic mobility (Decision No. 207.Reference Guide for Academic Mobility within the National Territory, 2023):

- Develop new skills such as independence, adaptability and expanding horizons.

- Develop the ability to act, such as self-esteem, integrate into other social and cultural realities and accomplish a personal project.
- Fighting routine lifestyles and developing multilateral communication.
- Develop the best professional and operational prospects.

#### **4.2-Digital Transformation in University & Scientific Research (Keeping Pace with the Information Revolution):**

The replacement of digitization and dependence on technology is a necessity driven by different perceptions, either to anticipate and keep pace with global transformations and feed the desire to keep pace with the spirit of the times, or to eliminate bureaucracy in its sense of "populist " and not fiberi in the treatment of many files.

Digitization:" is the transformation of information, data and various content into digital formats that are capable of storage, and facilitate access to information and better availability, and the process of digitization includes several processes, including:  
**4.2-1-Electronic processing:** Digital content is processed using computers and various software for editing, analysis and presentation.

**4.2-2-Electronic publishing:** Digital content is published online and on various electronic networks.( Shaimaa & Abdelghani, 17/02/2022).

Algeria is not isolated from the countries of the world that have accelerated the development of its systems, as the past years have witnessed continuous attempts to digitize the main sectors of the state in order to better manage the public affairs of the citizen.

Since the higher education sector is one of the major and important processes in the process of the State and the advancement of its economies, and because of its sensitivity and importance, it has been digitized to give it efficiency and effectiveness, as well as to keep pace with and adapt to the information and communications revolution, digitization has become a special dimension of the general policies of the Algerian State, as is known as New Algeria. Algeria's efforts to transform the higher

education sector into a vehicle for scientific research and a model for the use of digitization have been clearly confirmed:

**4.2-2-1-**initial registrations for baccalaureate students and achieving university entry for the first time without paper what is known as "zero paper ".the issuance of a decision dated 14/08/2023, which puts into service the electronic payment of university re-registration fees for the university season 2023-2023 "initiation of the re-registrations of students on the integrated information system (Progres) for all levels and stages entitled the university season 2023/2024 " (Decision No. 798/A,P/2023.Online payment of university re-enrolment fees for the academic year 2023-2024 for all levels and stages, 2023) .

**4.2-2-2-**Digitization of access to pedagogical facilities and university stays.

**4.2-2-3-**Student's electronic card.

Digital platforms are one of the electronic areas that provide virtual services to users on the Internet, an integrated interactive electronic system that may include a set of receptacles and whose contents can be accessed in an open or conditional manner, in accordance with the objectives set by those who manufacture their contents. (Safed, October 2020).

The year 2023 has been known to promote the digitization of the University of Algeria with six new digital platforms in addition to a new application, as follows:

- The first platform is for the electronic unified network, which will be used by a quarter of a million employees in the higher education sector.
- The second platform specializes in the certification and documentation of university degrees.
- The third platform is for the electronic portfolio to promote zero paper policy and electronic signature.
- Platform IV for medical scientific publications and research.
- The fifth platform is for the management of business incubators.
- Platform VI is for the acquittal of graduating students

Also launched

- E-network platform for higher education and scientific research associates.

#### **4.3-The importance of digitization in the sector of higher education and scientific research**

- To reduce the negative values defined by the Algerian University "nepotism, familiarity..."
- Promote positive values that comply with the digital project and cultivate trust among university actors.
- Creating transparency and equality of opportunity between the actions of the university family.
- Raising the quality of higher education, one of whose objectives is to make the university family enjoy a digital culture.
- Embodying digital culture and its role in improving educational learning processes.
- Reducing the burden and documentation, as reflected in the Zero Paper Strategy, in the registration of new baccalaureate students, as well as the registration of doctoral students.

#### **4.5- Expanding Tertiary Facilities (Enhancing University Mobility):**

As part of the higher education sector's endeavor to make it a locomotive for scientific research and to ensure that university institutions are kept in a continuous and continuous activity, especially with regard to pedagogical and research, the optimal exploitation of all university spaces and structures, and for the educational attainment of students, especially those who are in the process of graduation notes, it was decided to extend the opening of higher education institutions facilities to 10 at night. (22:00), this is by decision of the Ministry of Higher Education and Scientific Research of 16 August 2023 "In this regard, the managers of higher education institutions shall take into account the time extension attached above during the control of the programmes of pedagogical and scientific activities, including the preparation of timetables for teaching and the organization of scientific events. The

most important facilities for students and professors shall be kept at their disposal until the specified time." (Ministry of Higher Education and Scientific Research, 2023). Pursuant to this strategy, Muhammad Boudiaf University has discussed the thesis of the third Ph.D. in the History Division. Where "On the evening of Sunday 22 October 2023, Abdul Majid Alahom Lecture Hall was held in the Department of History of the Faculty of Human and Social Sciences of Mohammed Boudiaf University s first doctoral thesis in the evening for student researcher Frahtia Fawzi, On the escalation of the institutions of the Algerian revolution and the beginning of the emergence of the authority of the National Liberation Front and this discussion comes within the framework of the reform strategy by organizing pedagogical, research and intellectual activities, During the period from 5 to 10 o'clock at night "(official website of Msila University <https://www.univ-msila.dz/site/>, 2023).

A doctoral thesis was also discussed at 19:00 p.m. on 25 October 2023 at Martyr Hamah Lakhdar University in OuadiSaouf, tagged "Employment policies and their implications for political stability in Algeria" in the specialization of public policies and public service. (Official website of Hamah Lakhdar Elouadi University, 2023).

Mohammed Khaidar Biskra University announced the opening of the university's library halls from 6 pm to 10 pm: "Biskra University announces to all its students wishing to work at night at the University libraries that the reading rooms of the central libraries are open in the three poles (Biskra, Shetmeh, and brow) and the medical attaché library from 6 p.m. (18:00) until 10 p.m. on Sunday 29 October 2023" (Official website of Mohammed Khaidar University <https://univ-biskra.dz/index.php/ar/>, 2023).

Business incubators were opened at Biskra University for students enrolled in start-up institutions from 6th (06:00) pm to 10th (22:00) at night, in order to reflect students' innovations (Mohammed Khaidar University -Biskra - Deputy Directorate of the University for Scientific Research and University Rehabilitation, 2023).

In addition, meetings and seminars have been organized exclusively at night, with the aim of alleviating the daily pressures of university directors, people's officials, deans of colleges and heads of departments.

#### **4.6-Enhancing Medical Science Training (Supporting Healthcare Systems):**

Medicine is an organized work based on practices based on theoretical and applied knowledge, defined by John Charles as "the sector of knowledge and practice, whose purpose is to heal, mitigate and prevent diseases in human beings, or even repair, renew or maintain health".

Mahmoud Najib al-Husseini defines it as: "The activity in his way and the conditions of its conduct conform to the rules of medical science, and in its own right to treat and heal the patient, its therapeutic goal is to dispose of the patient wholly or to mitigate and prevent it". (Maryam, 2021).

Given the importance of health in preserving society from diseases and the urgent need for the development of Algeria's health system, The fact that the University is a social partner contributes to the formation of personnel and human resources contributing to the preservation of the State's assets "The Government has worked through some policies that will promote and develop the sector in order to comply with the requirements of the Algerian individual, One of these policies is a new strategy, which has been to strengthen the training points in the medical sciences of Algerian universities by opening 13 supplements to medical schools in some Algerian universities. (University of Saida, University of Msila, University of Adrar, University of Biskra, University of Jelfa, University of Boumerdas, University of Tipaza, University of Elouad, University of Tiaret, University of Chlef, University of Mascara, University of Oumelbouaki, University of Skikda).

#### **4.7-English-Language Training for Professors, New Students, and Doctoral Candidates (Advancing Scientific Research)**

After dominating the University of Algeria for decades, the French language has been used for many years, resulting in a decline in scientific research at the University

on the one hand, On the other hand, it is declining in world rankings and ranks. English is the common language of the world's population. The Algerian Government has developed a new strategy to promote scientific research in line with the requirements of the labour market. through the formation of new students and PhD students in English, "And adopt it as a language of teaching starting from the university season 2023/2024" (Ministry of Higher Education and Scientific Research, 2023) Information, Communication, Education and Philosophy Technologies (horizontal units), in order to enhance the communication capacities of university actors, the National Supervisory Committee was established and the implementation of the Initial Training Programme in tertiary institutions was followed up by decision No. 04 of February 02<sup>nd</sup>, 2023, which states: "Article 06: The National Pedagogical Committees for Materials are: the National Pedagogical Committee for "Education", the National Pedagogical Committee for "Philosophy", the National Pedagogical Committee for "Education", the National Pedagogical Committee for "Information and Communication Technologies". (Ministry of Higher Education and Scientific Research, February 02<sup>nd</sup>, 2023).

All these strategies aim at the real transition and promotion of higher education in order to keep abreast of global developments.

The English language and its accreditation in Algerian universities will contribute to the development of scientific research and ensure the quality of education, as well as the university student's reliance on English language references in research and investigation, thereby enhancing the quality of scientific research and increasing its visibility globally. It also contributes to informing the researcher about the world and understanding new research and African studies in his field of specialization.

#### **4.8- Introducing New Training Programs (Seawater Desalination and Green Hydrogen):**

In modern times, the University is the locomotive of economic and social growth. Its openness to its economic and social environment is an inevitable course. It is an effective coordination and a fundamental pillar on which the State depends for development and development. In order to match its outputs with the labour market, and in keeping with its evolution, new formation offers have been introduced, which are considered as the outputs of the Council of Ministers. These offers will be in the bachelor's and master's stages in line with the wishes of the students on the one hand and in line with the needs of the labour market on the other.

##### **4.8-1-Desalination of seawater:**

Desalination of seawater is "the removal of the proportion of salts found in seawater and oceans and their conversion into potable water, or the reduction and reduction of excess salinity and their use for watering and irrigation of agricultural areas, or in various industrial processes (Khalil, 2000).

In order to enhance the country's water security, which is affected by the effects of climate change and the conservation of groundwater, Algeria is pursuing a desalination strategy through the completion of many stations (Algeria, Oran, Tarif, Baumerdas and Bejaia) and the equipping of laboratories with state-of-the-art pedagogical equipment. It also involves all scientific actions and competencies in order to reflect common approaches between sectors related to specialization, such as the sector of higher education, scientific research and economic partners.

##### **4.8-2-Green hydrogen**

In order to make Algeria a locomotive for comprehensive development and renaissance, a university specialization has been added, which is part of the President's commitments to the higher education sector. Can be relied upon in the future as an alternative and clean energy for the environment, in the new formative offerings, With the aim of creating human capacities in this field for three years and

attempting to pursue its production as alternative energy, it encompasses many disciplines of renewable energies (solar energy, wind power generation, water power generation...).

Diversification of energy sources is a bet Algeria seeks to achieve through the development of hydrogen exploitation, by creating human capacities in this specialization.

Green hydrogen is a low-carbon renewable energy type, and its importance is that it is more sustainable. Its sophisticated technologies have helped to use it as fuel for aircraft, giant tankers and ride-hailing cars. It can also be intermediate gas for industries such as chemicals, refining, steel, metals and glass, and can store energy generated from renewable sources (Nematullah Sayed, 2022). Green hydrogen is a clean and sustainable fuel that many States and companies seek to develop and enhance their production and use by strengthening universities and research centres in this field.

Opening formation offers in Algerian universities, contributing to linking them with their economic and social surroundings and making them contributing poles to development and prosperity.

## **5 - Results and recommendations**

The study's findings include:

- The strategy of academic mobility contributes to the valuation of the student's course of university and his integration with cultures and traditions, especially since Algeria knows a great cultural diversity.
- The University of Algeria's digital transformation strategy contributes to its effectiveness and adaptation to global requirements and challenges and the elimination of negative manifestations and obstacles within the University. It also creates greater transparency between university actions and improved educational processes.

- The strategy of extending the opening of university facilities contributes effectively to increasing educational attainment, especially for students who are in the process of graduating, such as libraries, business incubators and research laboratories.
- The opening of medical colleges in some Algerian universities contributes to the strengthening of Algeria's medical system, especially since, in many cases, it is known that qualified medical personnel are disabled.
- The inclusion of English in scientific research increases the acquisition of new skills and access to scientific research and studies. It is also a strategy that emphasizes the government's endeavour to ensure the quality and sustainable presence of the university in international forums, especially since English is a global language and the language of scientific research.
- The strategy of opening new formation offers enhances the State's economy, such as the specialization of desalination of seawater and green hydrogen. It also contributes to linking the University to its social surroundings and makes it an effective pole in economic and social development.

The higher education and scientific research sector is regarded as a standard and indicator of differentiation between States. The Government's strategies for higher training are designed to give a new breath, include internal restoration, strengthening of the basic pillars, elimination of the consequences and repercussions of colonial dependence, and action to serve sustainable development. The study recommends that:

- Holding information days to familiarize students, professors and even social partners with strategies and improvements related to higher training.
- Emphasizing the elements of evaluation and evaluation. The first aims to address and identify errors and obstacles, while the second monitors the achievement of goals and strategies for higher education and scientific research.
- Pursuing research and investigation with a view to achieving new results that have a positive impact on the sector of higher education and scientific research.

- Further encourage language learning, e-learning, distance learning and the development of teaching staff and postgraduate students.
- Development of coordination mechanisms between the University and social partners with a view to strengthening economic and social sectors;
- More attention to the Algerian University as a tributary of prosperity, development and sophistication.
- Work to improve the University's visibility more through policies and strategies that make it occupy global rankings.
- Attention to university actions as the main engine of university advancement methods and tributaries to improve their academic reputation externally and internally.
- Making the university more partnered with its social environment by integrating its outputs with the requirements of the labour market.
- More research on offers of more flexible composition and contribution to the national economy.

## **6 -Conclusion:**

Algerian universities should be ranked first among the world's universities. s actions in the field of scientific research, In addition to the strategic and future vision, government policies on higher training and scientific research, in order to improve the University's visibility and ensure its sustainable presence in various global classifications and scientific forums, Building human capital capable of achieving economic and knowledge growth in the form of research, patents and placing academic research in the service of community development.

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