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Study Summary Axis: Upholding Mechanisms to Ensure Quality of Higher Education Criteria*

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This study aims to focus on mechanisms to ensure quality of higher education criteria through the main developed tool and ways in the field of education quality, as well as detect what are criteria to reach an effective insurance of higher education, so as to clarify necessities of this application, consequences, and strategic aims to get premium, civilizational and developed education in the sake of science, education, scientific research, and its quality. To demonstrate these components, scientific research is necessary to prove the efficiency of these mechanisms; and legally dedicated guarantees to reach premium and objective programs in the field of education. This aim cannot be reached unless we take into account, from hand, academic programs, and in the other hand, at what extent can studies, evaluation indicator, education and academic performance evaluation, contribute to reach quality results in the scientific programs and methods to portray the idea of quality. Due to the importance of the topic, the author chooses to contribute the deal with the following: A highly major matter related to mechanism to develop quality criteria in higher studies and scientific research through the following sections: Section one: quality criteria and its role in ensuring and developing scientific research; Section two: innovated mechanisms and ways in applying quality criteria; Section three: studying evaluation indicator, effective evaluation of the academic and education performance so as to canonize the efficiency of quality; and Conclusion: results and recommendation.

Keywords: mechanism, development, criteria, quality, high studies

Introduction

The topic of quality and mechanism to develop, its criteria it is regarded, in general, as strategic themes within the educational systems. The state through the university creates criteria and mechanisms that aim to reach a premium quality of academic and educational studies through education programs and pedagogical systems to get from the educational operation the expected objective didactic role, all this will be achieved through developing teaching skills and abilities.

To achieve that goal, we have to set up an effective strategy via exchange of scientific expertise and training in order to enhance academic and scientific performance, it is regarded as an important part. That is the goal that the modern university looks after in focusing on requirements of criteria and mechanisms, its role in ensuring and developing scientific research, let alone the requirements of quality, it implies to study innovated mechanism and ways in implementing criteria and standards of quality. Furthermore, determines the major

^{*}Enhancing the university performance within comprehensive quality criteria, 12th Feminine National Congress, University Education, Ain Chems Cairo, 2005. Research presented at the International Colloquium, Algiers University from 23rd to 26th April, 2012, p. 17.

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evaluation indicators, effective evaluation of academic and educational performance, in order to canonize effectiveness with global standard of quality, putting the scientific research on its right path and deduce all possible results to develop economic, social, and abilities in a modern and growing society. This is what international and Arab organization and UNESCO¹ called for.

Consequently, the author will dedicate to this study three fundamental sections that are: Section one: quality criteria and its role in ensuring and developing scientific research; Section two: innovated mechanisms and ways in applying quality criteria; and Section three: studying evaluation indicator, effective evaluation of the academic, and education performance, so as to canonize the efficiency of quality.

Quality and Role of Criteria in Assurance and Developing Scientific Research

In practical and organizational reality, there is no role in assuring and developing scientific research without dealing with specific criteria in the field of educational science. That means it includes distinguished bodies², each of it is in charge of one or more missions, the latter constitute, in the practical reality, a group of criteria that lead to the quality of the scientific material and assuring its development on the level of the accurate and relevant academic scientific research, as an art on which basis we know what we have to do in better way, dispatching role to assure the quality, regarding importance and expected aims to reach to connect a scientific operation to practical one. This can be reached only through focusing on the didactic importance and its major aspect. And then show the quality role in assuring and developing scientific research on both technical and didactical levels through the following parts:

Definition of the Didactical Quality and Its Importance

It is noticed on the states levels and global education, the importance of the big role in seeking means and academic and evaluation ways, in demonstrating quality ways and assuring them, and to take them in charge to serve didactical operation and to develop the field of scientific research, the characteristic enters in the contribution in serving scientific research and social, economic, political, and cultural fields³.

Quality definition. Quality word has many definition we note, inter alia, the following:

Some ones define it as: The fundamental pillars of successful administrative pattern, in the research filed in managing public administrative services, in the field of scientific research or in the learning and teaching operation⁴.

Others definite as: The competitive field of a product or service to satisfy needs, the meaning looked after from quality is research, the degree, kind, strength, accuracy, and work perfection as well as well doing it⁵.

Other definite as: Production and knowledge and scientific innovation of high quality⁶.

Importance and goals of quality. Quality plays in the field of scientific research, a role not to be sneezed

¹Dr Boughazi Tahar, professional role of university and its relation with teaching—field study—Tlemcen University. University magazine 2012.

²Dr Jacques Lobstein, structure and organization of paper project on labor sociology—AOUIDAT publication Beyrouth—Algiers university publication office 1st version 1985, p. 68 and following.

³Dr Drarka Ibrahim Youcef, mechanism of applying criteria of quality assurance in higher education and the role of universities in serving all. Publication 13/09/2015.

⁴ See in that context Dr Draraka Youcef Ibrahim-previous essay, pp. 1-3.

⁵See Yazid KADA magister paper entitled: Reality of applying comprehensive quality management in Algerian education institutions—Tlemcen University—Faculty of Economy, Management and Trade Sciences—2011/2012, pp. 1-10.

⁶DrAbdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—research presented in National Colloquium at Algiers University from 23 to 26 April 2012, p. 175 and following.

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in crystalizing scientific and didactic ideas, and its ability degree of academic and scientific study, in order to achieve many wishes included in didactic systems and programs, in programs accuracy and its goals to achieve balance between goals aiming to achieve a global and distinguished didactic and teaching pattern⁷.

This importance leads to educative, academic, and scientific goals that work to deepen many results of quality operation to reach the following:

- (a) quality is the fundamental to education operation;
- (b) increase the level and degree of scientific research of students effectively;
- (c) enhance and improve services;
- (d) evaluate the didactic and scientific quality of professors;
- (e) generalize advantages of quality and demonstrate its impact on the cultural, political, economic, and social level;
 - (f) create distinguished elite with scientific and practical dimensions in the society;
 - (g) scientific knowledge production and innovation to crystallize ideas and use them⁸.

Quality Role in Assuring and Developing Scientific Research

Scientific universities interested in their didactic institutions, in the role of the scientific, practical, education, and academic quality to deduce the meaning of programs structure, to assure a comprehensive part of development and set up the didactic mission, through teaching stages and focused on to build a fundamental basis in scientific studies, and then implement it, to achieve complementary aims, main and secondary goals of quality⁹.

In order to study the role of quality in assuring scientific research development, we will speak about the matter of quality and its role in Deeping guarantees, in the large scale in order to develop scientific research on teaching and practical levels as follows:

Quality matters, its role, and advantages. The major operation that labor psychologists ¹⁰ noticed in the field of research regarding the common characteristics behind the huge flux of scientific missions that concerns several deeds focused on precise techniques of practice that contributes in accomplishing quality goal ¹¹.

The latter is regarded as a mixture between role and usefulness, this vision allows determining the role mainly benefits as follows:

- (a) determine the role that quality is supposed to play in the field of scientific research;
- (b) mastering that is based firstly on coordination between programs and activity elements or activities, and evaluation and results;
 - (c) well prepare and technical research, and professional preparation on all levels;

⁷See Yazid Kada, comprehensive quality management in the Algerian Education Institutions.

See Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—research presented in National Colloquium at Algiers University from 23 to 26 April 2012, p. 175 and following.

⁸Our prophet Mohamed may the peace be upon him Said: "any deed has to be done as perfect as possible".

⁹Dr Drarka Ibrahim Youcef, mechanism of applying criteria of quality assurance in higher education and the role of universities in serving all. Publication 13/09/2015, pp. 1-3.

See Yazid Kada magister paper entitled: reality of applying comprehensive quality management in Algerian education institutions—Tlemcen University—Faculty of Economy, Management and Trade sciences—2011/2012, pp. 1-10.

See Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—research presented in National Colloquium at Algiers University from 23 to 26 April 2012, p. 178 and following.

¹⁰George Freedman Pierre Navel paper on labor Sociology- paper on labor sociology—previous reference, p. 62 and following.

¹¹Dr Jacques Lobstein, structure and organization of paper project—previous reference—p. 62 and following.

- (d) analyze the missions of scientific research and the application field;
- (e) considering programs criteria and programming standards in analyzing science and practice 12.

Role and advantages of quality. Some jurisprudence specialist esteem¹³ that the idea of comprehensive quality management, and its degree, analysis, and usefulness that can be achieved if we take into account standards and criteria that regulate the idea of quality and its development in the field of scientific and academic research, we consider the following:

- (a) regulate the development of administrative systems, in any didactic institution because the clearness of roles and goals in determining the didactic institution role in Deeping reforms, programs, and scientific systems;
 - (b) increase the capacities and level of professors;
 - (c) relaunch the trust and co-operation between didactic institution and society;
- (d) provide an atmosphere of understanding, co-operation, and relations between institutions, systems, and didactic programs;
- (e) serious co-operation between concerned parties relevant to the operation of adjusting operation of quality criteria, premium according to constant and clear fundamentals;
- (f) not to content on setting up theory standards but to move form practical standard to practical applied standard in order that the adjustment operation will be serious;
 - (g) review standards from a while to while, according labor variations and created circumstances;
 - (h) adopt the principle of motivation and punishment in the evaluation operation ¹⁴;
 - (i) the range and seriousness of the idea;
 - (j) research results and its connection to its field;
 - (k) commit himself to methodological and scientific measures ¹⁵.

The degree of coordination appears in these standards and its role in developing and serving the quality feature, as success tool in developing scientific research, thus, the cultural, political, economic, and social development as sustainable and comprehensive development move.

Universities has only to go with didactic quality in training an elite in the society and good teaching is evaluated on the basis on goods and developed methods and programs.

This will not be reached only through reinforcing complementary programs, international exchange, setting up domestic strategic to reform education, determine partnership criteria in training skilled researchers, this will not be promoted only by premium national capacities in managing methods included in capacity programs.

Innovated Mechanisms and Ways in Applying Standards and Criteria of Didactic and Scientific Quality

This study aims to research in innovated mechanisms and ways, components, and hidden aspects to reach

¹²Dr Jacques Lobstein, structure and organization of paper project—previous reference—p. 65 and following p. 54.

¹³Dr Drarka Ibrahim Youcef, mechanism of applying criteria of quality assurance in higher education and the role of universities in serving all. Previous reference, pp. 1-3.

¹⁴See Dr Drarka Ibrahim Youcef, mechanism of applying criteria of quality assurance in higher education and the role of universities in serving all. Previous reference, pp. 1-3.

¹⁵See Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—previous reference—p. 171 and following.

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higher and effective aims, in the scientific and didactic operation in order to select the major criteria and standards, so as to detect horizons of the programs and methods quality and use it in the field of scientific research.

To determine criteria and standards of quality, we esteem to dedicate our effort deal with, first of all, innovated mechanisms and methods in the field of scientific research implementation, and then criteria and standards as a way to reach the didactic and efficiency of quality, as follows:

Innovated Mechanisms and Methods in the Field of Scientific Research

We mean by mechanism the innovated steps of major treatment or more to achieve the determined goal¹⁶, its implementation in many steps, then each step turn to ways and mechanisms, to achieve aimed and flexible goals, with efficiency in serving the scientific research and improve it, theses mechanisms in fact are pedagogical formula in teaching, work to enhance the challenge with the researcher, student and programs in one hand, and perfection of concepts and general fundamentals in the other hand.

Some persons esteem that studying many mechanisms ¹⁷ and ways, implies necessarily the following:

- (a) set up training ways and build programs and professional means to mechanize the quality of scientific research and its perspectives;
- (b) seek human energy dedicated on the scientific, practical and professional level to lead the operation of quality and enhance and develop the scientific research;
 - (c) build a study program that correspond to strategic goals in the didactic and scientific operation;
- (d) consider the expertise and teaching ways, techniques comprehended in the academic and scientific specialty;
 - (e) building methods based on fundamental modules for practical and scientific consideration;
 - (f) set up a strategy for large scientific perspective;
- (g) deepen the rational co-operation field, between universities, methods and technical serious ways, objective and diversified;
- (h) method and its mechanisms will represent the comprehensive large step, for the different forms based on developed programs that consider the graduation in fundamental technical modules, in different sciences according to each didactic and academic important training stage ¹⁸.

These mechanisms are the path to reach innovated didactic ways that is considered as the angle stone of scientific research.

Thus, we will not reach the success of these ways and mechanisms except through regarding how goals and effectively determined, through capacities and skills to connect mechanisms with the different methods in order to work on materializing them into scientific goals linked to scientific research, study perspectives, and develop the didactic systems.

Didactic Quality Standards and Criteria and Its Efficiency

The aim of studying standards and criteria and their effectiveness in the field of didactic quality is

¹⁶ Dr Abdellah Koli, strategies of co-operating teaching and developing skills and communication. Research presented in Education and Psychology Algerian magazine. N1 May 2007, Algiers University, scientific magazine, periodical issued by education and psychology laboratory, p. 63 and following.

¹⁷Dr Abad Messaoud, basis of education system. Research presented in EL MAAREF Magazine periodical issued by education and psychology laboratory—periodic scientific magazine n°2/2011, p. 10 and following.

¹⁸Dr Abad Messaoud, basis of education system— previous reference, pp. 10-14 and following.

regarded as one of the fundamentals in each evaluation and valuing the education operation and the reference that organize the achievement, any objective study that all countries are interested in the framework of reaching developed and high scientific research, by reforming didactic methods or by integrating education standards that are important to show its role in the study results and enhance them, this importance is included in the building of programs and method to develop the scientific research¹⁹.

These criteria and standard can be deduced from the following:

- (a) recourse to comprehensive quality to compare, evaluate, and learning; calculate ideas, methods, and operation of academic and education research to appreciate the power of effectiveness and quality;
- (b) study the characteristics, levels, and didactic stakes of study programs to discover the performance of didactic characteristics;
- (c) compare the quality of service with the quality elements, provide didactic service in the level of didactic institution;
 - (d) present indicators of didactic operation to know the level of scientific assimilation;
- (e) choose methods and programs is one of the factor of the first step, towards the quality of higher education inter alia the scientific research;
- (f) adapting specialties and their methods is regarded as a main indicator to university and scientific research quality;
- (g) the skills of the professors develop them and scientific production, such as research and publication, are real indicators to the quality of scientific research;
- (h) the level of university programs to study the level, the way, the style, and the horizontal and vertical connection with scientific event are an indicator of the quality of scientific research;
- (i) perquisite of the university quality is to that the library will be comprehensive and include all specialized and general knowledge reference;
- (j) link the university with the society through interactivity with production companies and service provider, organization, bodies and education, scientific, and research center, are considered as a major axis and main indicator to achieve the quality and the performance of universities and scientific research.

These are the main standards and criteria as perquisite to achieve the higher indicators of didactic quality in the field of scientific research, with a focused and concentrated way, deduced from the reality of academic studies on quality matter, programs, and didactic methods to reach the effectiveness of the scientific research²⁰.

The quality results are the concern of education and administration actors in many didactic programs and methods, increase the interest through setting up serious standards and criteria and strategy as revolution to lead it, based on capacities able to challenge in developing mechanism and methods, which is a tool to a civilization building in research and scientific operation²¹.

¹⁹See research entitled: roles of the medium level teacher in an approach to teach by skills and most important necessary teaching skills to practice teaching—research presented at the psychology health education magazine n°4-201/2012—Algiers University 2—periodic scientific magazine—by Mohamed TCHADINE 3rd Doctorate degree in education sciences, p. 155.

²⁰Dr EL Ayachi Benzerrouk, strategy of organized teaching related to auto efficiency and achievement motivation to student of high school—research presented in the periodical education and psychology magazine—scientific magazine n°6 2013-2014, p. 8 et 12.

²¹Dr Sitrak Riyad, studies in education administration—previous reference, p. 54 and following.

Study of Effective Evaluation and Valuation Indicators to the Education and Academic Performance to Canonize the Efficiency of Scientific Operation

Indicators of pedagogical, education and academic evaluation and valuation to assure an effective quality and refer to two very important matters, the first one is related to valuation and the second one is related to evaluation, and both are aims to obtain positive impacts on the scientific research²².

We mean by valuating the quality is to conclude results from the valuation operation of methods and programs from the point of view of goal achievement or not.

Whereas the matter of evaluation aims to evaluate the comprehensive of the university and research performance thorough mechanism and adequate fundamentals²³.

This curve represents a high importance to measure quality of didactic and research operation. From this point, we have to speak, first of all, about of valuation indicators, its role and goals, and then, show the role of evaluation in the field of effective valuation of educative performance in the field of didactic and practical quality development as follows:

Valuating Indicators, Their Role and Goals

Valuating indicators play major role in the practical and didactic operation, to achieve long-term goals in the scientific, technological, and research progress²⁴, whose aims is scientific research quality to go with the developed countries.

This indicator cannot be achieved only by following certain valuation mechanisms, such as: 25

- (a) improving the study method through adoption relevant different academic research in the field of scientific and didactic research;
- (b) developing teaching skills relying on co-operation in the field of methods and program from the point of view of study, analysis, measurement and determining the scientific conditions of the professor;
- (c) constitute certain number of information and scientific goals et treat them to enrich the scientific research;
- (d) study of methods and quality criteria with all its positive and negative aspects, conclude quality date through it;
- (e) research proves that its usage has a powerful impact on the will on learning, and then achieve levels and capacities a scientific motivation;
 - (f) valuating acquired results and facilitate its transfer.

These are the most important valuation indicators, some jurisprudence esteem the educative study to assure the quality of higher education to achieve scientific research perquisites and develop research culture,

²²Master degree prepared by the student Abdi Abdeladim and Hadar Djamel entitled: application of comprehensive quality management in higher education—Mohamed Khider-Biskra—Faculty of Law and Political Sciences 2013-2014, p. 33 and following.

²³Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—previous reference, p. 175 and following.

²⁴Dr Laabane Karim, increasing university quality in Algeria through LMD application. Paper presented at the International Arab Congress for Quality Assurance in Higher Education. Zerkaa University Jordan from 10 to 12 May 2011, p. 1.

Dr Mohamed Lamine Khelladi, mechanisms to training and evaluation between reality and proposition. Paper presented in Algiers University 1—National Colloquium from 23 to 24 April 2012, p. 125 and following.

²⁵Dr Abdellah Koli, strategies of co-operating teaching and developing skills and communication. Previous reference, p. 64 and following.

Dr Siriak Riyad, studies in education management previous reference, p. 54.

use of methods, adequate, distinguished to achieve valuation goals and the educative performance scientifically and practically, to improve the valuation of the quality and assure to raise the level of scientific research as prove of the quality of training courses, programming, and way of teaching and valuation.

Effective Evaluation of the Educative Performance and Its Role in the Field of Didactic and Scientific Quality Development

This stage is regarded as the important of the didactic stages to any educative, didactic, research, and academic field in the framework of achieving the quality of teaching and go with the political, cultural, economic, social, and civilization progress.

This study needs in the practical reality to theory and practice²⁶ to determine the concept of educative, didactic, and practical quality in any field mainly in the field of higher education and scientific research.

Professor Abdelaziz Haddar esteems²⁷ that the concept of valuation mechanism is subject to many factors and indicators to materialized the valuation and judge it. In this event, we have to take into account the aspect of research university performance from the point of view of knowledge production through didactic research. Furthermore, seek scholar knowledge to judge the quality of scientific research.

For that end, we have to take into account knowledge, goals and quality criteria as follows²⁸:

- (a) following up scientific, research, and innovation production of high quality techniques;
- (b) adopting didactic institution to define the academic level;
- (c) evaluation research projects;
- (d) evaluation of scientific research and how the degree of its ideas seriousness and genuine;
- (f) comply with methodological and scientific conditions, and be impartial and honest in evaluating;
- (g) encourage the research quality through moral and financial motivation;
- (h) set up evaluation quality policy of national research;
- (i) developing the scientific and intellectual independence, personal initiative, developing the responsibility spirit and team work.

These are the most important indicators to evaluate to judge the quality of scientific research, it cannot be evaluate only on the basis of scientific publication indicator and ignore the other indicators.

Thus, we give an overall highlight and concentrated on the application mechanism of criteria of assurance the didactic quality in the field of scientific research, and what are mechanisms, strategies, and goals of applying these mechanisms.

Conclusion

We recommend to take into account results and recommendation deduced from the research as follows:

- (a) adopt scientific and academic methods to achieve the scientific goals;
- (b) consider the knowledge production and transfer it to serve scientific research;
- (c) take into account the field of publication and valuation and evaluation indicators of each research operation objective and worth to develop the scientific research;

²⁶Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—previous reference, p. 175 and following.

²⁷Dr Abdelaziz Haddar, previous reference, p. 175 and following.

²⁸Dr Abdelaziz Haddar, towards building a system to evaluate the quality and research in Algerian University—previous reference, p. 177 and following.

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- (e) the application of these mechanisms will not succeed unless it is provided a scientific high qualified and highly trained institution on ways and management of programs from the adequacy or not to reach a training and didactic operation to serve university, community, and scientific research;
 - (f) translate quality concepts practically and scientifically;
- (g) give the opportunity of theory and practice university study to evaluate seriously the scientific research and encourage it.

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