Design of Instruction Service Quality System in Accordance with the Information and Communication Technology Frameworks

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ABSTRACT
This study aimed to identify the impact of the complementary relationship between the application of electronic environment and quality instruction, through a review of the most effective means to achieve quality assurance in line with modern items, features of the twenty-first century. The study also found a set of conclusions: an instruction institution is one of the most important phases of e-Government, in particular with regard to the dissemination of information and two-way communication. So the activation of information technology in instruction institutions is one of the most important reasons for the success of e-government project. Finally, the study showed a trace of integration between application quality instruction under information and communication technology and the success of instruction institutions.

Keywords
Instruction Quality, Frameworks, Typologies, Modern Educational.

1. INTRODUCTION
In response to the growing scientific and technological revolution in the contemporary world, and the owner of a civilized competition, stressed the excellence a matter of urgency, and highlighted the inevitability of the development of instruction and the adoption of its institutions, as a standard head to judge the quality of instruction and upgrading its institutions, headed most of the developed and developing countries alike to re-examine their systems instruction, hoping to improve the quality of inputs, processes and outputs, and increase productivity through the development, and improve their performance on an ongoing basis, achieve regulatory climate is a matter of creativity and innovation, it is keen to quality and excellence. The awareness of the role of instruction in sustainable human development, the quality of public instruction has become one of the important issues that received care increased - in recent times - by the respective personnel to instruction [1].

There is no doubt that the subject of quality in general and technical instruction, higher and continuing one of the most important issues which the developed countries attached special importance since the time invested in it even became a quality indicator and an important element in the progress and development, research and competition. UNESCO has identified in the current initiative in 2000, "Education for All" several goals, and was the sixth goal of UNESCO is to improve all aspects of instruction to get to put everyone can be distinct and achieves all students recognized and measurable results, particularly in literacy and numeracy capabilities and basic life skills and lifelong [2]. The most important achievement of the quality of instruction kits provide information and communication technologies and using them effectively by making it a major focus in the performance of work within these institutions and departments and outside, and activated in the teaching and learning process as a gateway for e-learning, which has become one of the most prevalent types of instruction and an acceleration in the present era with work to provide base renewed periodically information, so as to be an essential reference for every researcher for information within this sector[3].

By including this rule adequate data on instruction in terms of enrollment, rates of promotion, repetition, and dropout. The human resources of the members of the instruction, administrative, technical staff, their areas of specialization, the expertise and research, can be considered as adequate data include professions, their characteristics, the statement of the increase and the deficit in the national workforce from different disciplines. This thus helps decision-makers to form a joint future visions directed quality and is working to achieve in this sector, and to translate this vision of the future to the procedures and processes that can be implemented at the departmental level and instruction institutions [4].

2. RELATED WORKS
Numerous Arab and foreign studies that have addressed the issue of quality and the role of e-government in improving the level of service. In contrast, there were limitations in the studies that link information technology and quality. The results indicated the importance of the use of information technology in the application of all the dimensions of Total Quality Management (TQM), on top of that increase creativity, information and analysis, while the importance of the use of information technology in terms of emphasis on the quality of suppliers, and the results of quality [5]. Defined the quality of instruction as the criteria and characteristics that must be found in the instruction elements of the process, both with respect to all inputs, all processes, and all outputs, which meet the needs of the community, its requirements, desires of the learners, and their needs.

Then achieve those standards through the use of group effective for all the material and human requirements. Both (Jomtien and Dakar) focuses to learn the characteristics in their definition of the quality of instruction, where pointed out that they represent "the introduction of learning the characteristics desired by addressing the process based on the teaching staff of qualified familiar with the knowledge of pedagogy. Pedagogies and curricula integrated and appropriate under the governance of a fair system and equitable from the standpoint of [6]. The quality of instruction defined as the instruction system contained standards and

stages which depend upon the efficiency of the system and the effectiveness of the various elements of the process (inputs, processes, outputs, environment) in order to achieve higher the level of value, efficiency and effectiveness of each of the objectives of the system and the expectations of asylum instruction service (students, community). There are many institutions and international bodies concerned with public instruction and the quality of teacher preparation based in institutions of higher instruction programs in many countries of the world [7].

1-Britain: Britain is Training and Development body for Schools and Agency (TDA).

2- Scotland: there are in Australia General Board of Education in Scotland (GTCS)

3-Australia: Australia adopted that sustainable creativity (Sustained innovation) future development and prosperity in the competitive global economy key.

4- Europe: in response to the challenges set by the internal report of the European Union for instruction and training until 2010 (EU 2000). In order to improve the instruction of teachers and trainers, have been identified the basic principles of the capabilities and qualifications of teachers.

These principles include: the profession of high-qualification (A Well-Qualified Profession), which require knowledge on the subject of specialization and science education (Pedagogy), skills necessary to guide, support the students, understand the social, cultural dimension of instruction and capacity; a profession placed within the context of lifelong learning, which include professional development for teachers in all areas through instruction, training, re-training in formal and informal. Mobile profession are regarded as the motor, while Mobility is a central component in the initial and continuing teacher training programs; and a profession based on partnerships [8].

5- New Zealand: There have special qualifications known as the New Zealand Qualifications Authority (NZQA) and the New Zealand Teachers Council (NZTC).

6- United States there is the adoption of Teacher Education Accreditation Council (TEAC). There is also a National Council for Accreditation of Teacher Preparation Programs (NCATE); and adopt the philosophy of relying on several principles such as: development of a continuous process, the accreditation process based on inquiries and material facts ... etc.

3. INSTRUCTION QUALITY

The higher instruction to prepare the manpower that they need to work, production and service sectors in the community, and the institutions of higher instruction for many tasks are in instruction, scientific research and community service in various fields. Even leading higher instruction institutions assigned tasks efficiently, it should be resources, material and human means necessary available for it to do the tasks. As a result of expansion in higher instruction has increased the number of admitted students, which is a burden on the administration, especially if the resources are limited. In particular with the high-speed technical development that the latest big gap between the instruction systems in developed and developing countries [9]. This may be due attention to the issue of quality in instruction that the expansion in instruction institutions at the global level and to increase the number of students has led to low levels of instruction achievement, especially with the continuing decline in financial and material resources granted to instruction institutions, that the World Bank decides in his frequent for Instruction, and confirms the problem of the decline of the quality of teaching and research has become a global problem, and that as a result of multiple and overlapping factors, including:

- Poor teachers efficiency,
- Limited financial resources,
- Physical facilities,
- Poverty,
- Office and scientific equipment,
- Low internal efficiency,
- The emergence of the problem of unemployment among the educated.

Instruction and knowledge pillars depend on the mind and thought basically, so for they are linked to the intellectual and spiritual side of a human more than the physical aspect. The concept of quality in instruction has two meanings are linked; one was realistic and the other sensory. The quality of instruction sense realist concerned with the instruction institution's commitment to the completion of indicators and real standards generally accepted such as the cost of university instruction rates. While the meaning of sensory quality of instruction based on the feelings of the recipients of instruction services such as students and their parents like [10].

- Direct instruction product review of a student.
- Instruction product is not direct review.
- Discover the different types of waste and loops.
- The development of instruction through the instruction system evaluation and diagnosis of shortcomings in the inputs, processes and outputs even the evaluation turns to real development and adjust the quality of instruction service.

3.1 Quality elements

The quality of the instruction process, consisting of students and members of the university bodies elements.

- Quality of the material, including instruction programs, books, methods and techniques.
- Instruction quality place, with its classes, laboratories, libraries, workshops and others.
- Management with quality depends upon the laws, regulations, regulations, legislation, adopted policies and philosophies, adopted by the structures, means and resources.
- Product quality (graduates and research activities, and community services).

3.2 The most important barriers in the quality of instruction

The barriers to achieving quality public instruction are as follows in order of importance [11]:

- The rule of traditional cultural environment in the public instruction sector.
- Dominance of the central method in the formulation of policies and decision-making.
- Lack of specialized in the field of total quality training cadres.
- Lack of top management support public instruction sector for the application of total quality model.
- Poor information system.
- organizational and functional public instruction inflation

- Applicability of regulations and legislation and regulations and stagnation.
- Predominance of theoretical character on the practical side in public instruction.
- Teacher preparation programs need to be reformed to improve the qualitative instruction. A large proportion of new graduates from teachers are qualified but are not trained to promote the qualitative level of instruction or trained improperly.
- There is harmony between the huge number of graduates and the numbers of vacancies available in most disciplines.

4. KINDS OF HIGHER INSTRUCTION GOVERNANCE MODELS

There are two basic kinds about the researches on the governance models in higher instruction; *the first kind* is the theoretical frameworks which different kinds of higher instruction systems are dependent. *The second kind* illustrates the typologies for higher instruction systems/institutions and depends on the basis of the individual characteristics. So in the first approach, different factors have the same impact on institutions. While the inductive method emphasizes certain aspects which can merged from the research approach chosen. However, the conceptual analysis can overlap between two kinds [7].

4.1 Theoretical Frameworks

The first typology of governance systems established in 1983. Depending on different higher instruction system, in particular, of the university, the strength of state authority, market forces and academic oligarchy. So it can opened the way to different modes of co-operation in higher instruction [12]. By discarding market forces, the universities function considered like markets under state influence. The state control model and the state supervising model are found mostly in continent Europe. To distinguish between two opposing systems; the first type is characterized by strong state regulation and is an influential academic oligarchy, while the latter shows a lessening of state influence to provide the overall framework only. While the steering power of intermediate organizational actors (such as deans, rectors, boards of trustees) increases and will cause interference [10].

4.2 Typologies in higher education

Depending on researcher‘s perspective and choice of different case studies, certain concepts for the university in a certain timeframe. Minor characteristics can be seen as different concepts remaining from other policies, timeframes and classifications and varying according to faculty or institute. Typologies can distinguishing only between a market model and a collegium model. Some universities seem like antique archaeological sites with a stratum for each age. It can avoid this situation by distinguish between the market model and college model. This is can be do it by a strengthened managerial core, an enhanced development periphery, diversified funding and a stimulated academic. By dependent on the basis of the early triangle, for describing governance which is strongly influenced by academics and government. If the topology of policy has changed, then policy sociology in instruction must change too [13].

4.3 Scientific Representation Of Quality System In Instruction In Accordance With The Information And Communication Technology Frameworks

Modern technology has transformed the contemporary society components to digital cultural knowledge and transparency, schools and intelligent virtual environments. This technology has made many educators and instruction decision-makers in the whole world almost seen as a potential window of opportunity should be invested to bring about a qualitative shift in the instruction system in all inputs, processes and outputs. University and higher instruction is one of the components of this system that can take advantage of that potential. Efforts and initiatives have varied in integrating technology in the university and higher instruction institutions starting operations management, admission and registration, etc., and through the transfer of the traditional distance learning (correspondence, radio and television systems) to an electronic or virtual instruction online. These huge developments have led to the emergence of the phenomenon of electronic university or default (Virtual University) [14]. The most important thing achieved by this system is the following:

- It works on the basis of quality assurance using information and communications technology in the implementation and management of the instruction process with all its institutions dependent on the Information Centre for Higher Instruction provides all the information needed for instruction and scientific and technological research, and serves the community.
- Provide a number of electronic services to the members of the faculty and students through an electronic gate each university.
- Ensure the continuity of benefit from the outputs of higher instruction.
- Working to raise the degree of use of information technology in universities and help reduce the digital divide by working the following criteria:
    1. Network infrastructure development project information.
    2. Project operation and activating the electronic gate of the university.
    3. Develop project management information systems (MIS).
    4. E-Learning Project.
    5. Digital library project.
    6. IT training project.

5. THE SYSTEM PROPOSED FOR DEVELOPMENT THE QUALITY INSTRUCTION

University and higher instruction is one of the components of this system that can take advantage of that potential. Efforts and initiatives have varied in integrating technology in the university and higher instruction institutions starting from operations management, admission and registration, etc., and through the transfer of the traditional distance learning (correspondence, radio and television systems) to an electronic or virtual instruction online. These huge developments have led to the emergence of the phenomenon of electronic university or default (Virtual University).

Based on the information and communication technology skills, and the results of studies and research new in the field

of instruction and the preparation of curricula, and organization of university, the standards are designed to develop the professional capacity of teachers who will use the skills and resources available in the information and communication technology to improve teaching style, collaborate with colleagues, and perhaps to turn later to innovative leadership within their instruction institutions. This is not only to improve the practice of teaching, but is keen to achieve this goal as well as enhance the quality of the instruction system. The teachers efficiency standards in the field of information and communication technologies aimed at linking instruction reform, economic growth and social development in order to improve the quality of instruction, so as to meet the challenges of the twenty-century atheist and this requires the following:

- Increase technological awareness through the integration of technology skills within the curriculum or approach the so-called technological literacy.
- Enhanced scalability teachers and encourage them to innovate, produce new knowledge, or the so-called knowledge production approach.

The system outputs are affected to a large extent by the quality of the system input and by the role of information and technology. Therefore, it must provide any activity of an organization some important elements in the input as the conditions that must be met in order to move to the outputs. So any activity of any organization must have important elements that qualify him to become important inputs must be met in order to be dealt with and then transferred to the outputs. The levels of the organization can represented as an integration levels of the organization or information technology systems as illustrated in Figure (1).

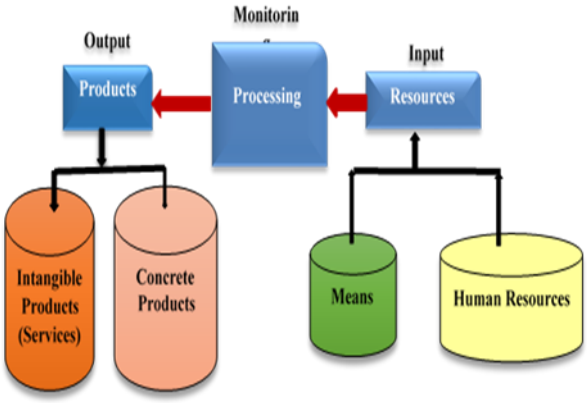

Figure (1): The Components of a modern education system

It's very interesting idea understand instruction institutions and their target which seek to achieve through its quest to satisfy the needs of the labour market. If the institutions did not achieve the target of quality assurance in the output level. The measure and the actual output are compared to the desired output (target) that guarantee minimum of quality standards, which are requires the consideration to the target output as one of the most important inputs to the modern instruction system, as illustrated in Figure (2). One of the main reasons for the instruction process quality indicators is to upgrade and improve outcomes, and this will confirm the standard specification for ISO: 2008, "which was the most important features is to focus on the customer".

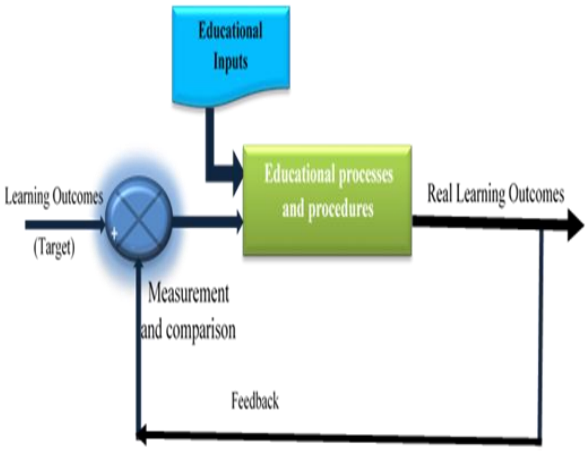

Figure (2): Modern educational process system components

Noteworthy that the diversity of the instruction process outputs can depend to a large extent on the nature and diversity of the goals of instruction institutions, taking into account the circumstances and requirements of the surrounding environment. In addition to the efficiency of these institutions which make them adopt some types of outputs without the other. There are eight types of outputs that focus in this study, below some of them in Table (1). The support services to instruction has been illustrated in Figure (3).

Table (1): The inputs, outputs and services

Inputs	**Outputs**	Quality of Graduates
		Training Programs
		Scientific consultations
Government		Scientific Projects
Policies		Scientific publications and Books
Students		Scientific Research
Management		Conferences and seminars
Equipment		Satisfaction and Reputation
Services	Training of teachers	
	Public relations	
	Government	
	Miscellaneous	

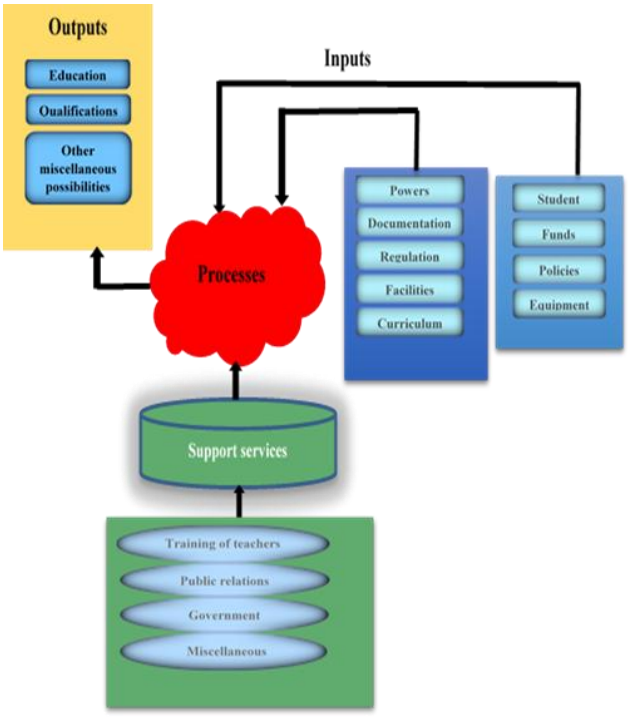

Figure (3): Support services to education system

5.1 The Proposed Methods for Professional Development Program

Since the service conditions for teachers remain very poor in most countries. The service is an important component for any effort to improve the instruction is the need to improve the prestige and attractiveness of the teaching profession, such that talented individuals are attracted to the profession and are able to share their knowledge and enthusiasm with students. The pedagogical and the objective knowledge are very important for teaching staff, for reaching to the effective teaching. Also there is an urgent need for better training of teachers at all levels, not only for providing accurate information to their students, but also do it in a manner that urged their imagination, fosters the analytical minds. Quality instruction is one of the most important factors influencing student performance. By extension, professional development is vital to educators and administrators seeking innovative and pedagogically sound teaching methods. Effective professional development strategies have been directly linked to school success and teacher fulfillment [30]. Increased the knowledge and skills of faculty members and administrators regarding legal issues, accommodations, and resources will lead to more positive outcomes for students with disabilities. There are many factors impact on the academic success of students with disabilities, including physical access and campus support services.

Although students often decide satisfaction with their accommodations, some students with disabilities have difficulty acquiring accommodations, some course content and activities are undesired. Besides, some faculty members have negative attitudes towards disabled students. Overall, despite the committee assignments, research responsibilities, and community work, the professors are accepted to training in teaching students with Disabilities College administrators also acknowledge for needing to provide training for faculty regarding the capabilities and unique needs of students with disabilities. Both faculty and students have expressed the need for faculty development so that the instructors can better understand their legal obligation to provide many factors like academic accommodations, learn about typical accommodation strategies, and improve communication skills. Figure (4) illustrate the most important factors for professional development program.

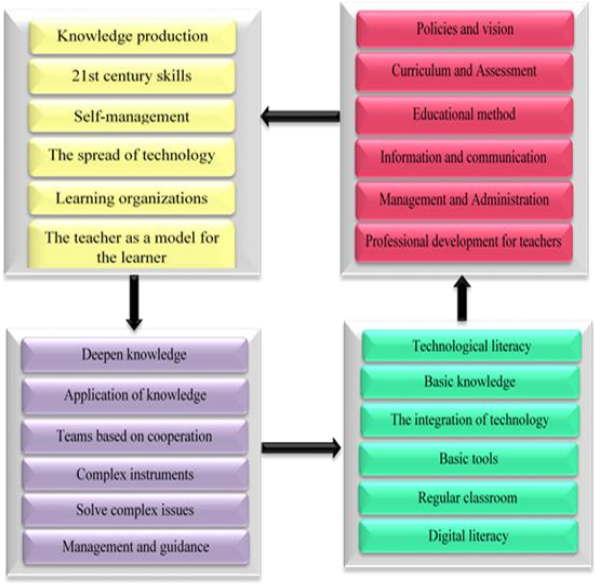

Figure (4): The important factors for professional development program.

6. CONCLUSION

The quality teaching consider is complex and open to a range of definitions and interpretations. The intense competition in the labour market and the global competition between institutions of higher instruction are come as a result of the global trend of globalization. The spread of global bodies for quality assurance in higher instruction, which has worked to identify policies and standards to ensure the quality of programs in higher instruction. As a result it has become necessary for institutions to achieve their programs as a prerequisite for recognition and approval. This paper adopted a pragmatic approach, based on how institutions define quality in their own circumstances and how are developed through the following:

1- The development of mechanisms that ensure full integration of all information systems and telecommunications applications.

- Reconsider the current instruction system, and develop a comprehensive integrated, achieve comprehensive and integrated development of the learner.
- Reconsider the philosophy and objectives of the programs and curricula, and attention to the need to exercise the activities.
- The need to employ instruction technology and their development to serve the learner, and focus on the benefit in the instruction curricula and programs.
- Provide an opportunity for learners to choose instruction which fits them all.
- Reconsider the colleges of instruction programs to activate its role and achieve integration among them, because they are the basis for the growth of vocational teacher.
- Study many of the instruction problems that hinder the achievement of quality instruction, and providing programs, plans and solutions to overcome them.

- The employment of technological innovations effectively in the instruction process.
- Identify new first hand in the field of instruction technology and their development, the study of how to take advantage of it and employed in the instruction process.

2- The deployment of a wider concept of continuous learning, and to encourage self-learning.

3- The researchers used the term information technology, refers to the modern technical environment, and reflect the hardware and all hardware and software, which deals with the data for the purpose of processing and night is to shift information.

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