Theses on the evaluation of teaching performance and methods of teaching and its impact on the quality of architectural education

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Abstract.

The progress of nations became dependent on what their knowledge and developed technology and on the educated human resource that are able to create, produce and compete in the field of educational development and positive investment of human resources, "Educated nations are the strong nations". Those nations see that the educational sector represents one of the main pillars in developing the society.

This means that the sector of architectural education is highly required to develop its tasks and elements and to improve its outputs according to the quality requirements. It is important to get those tasks and elements to a high level that matches the developments that increase day after day in order to promote the communities and to push them strongly into the direction of development and progress. To achieve that, a renewal in the fields of architectural education is required, one of which is evaluating the performance of the member of the architectural teaching staff. Also, the traditional teaching methods should be developed and efficient learning methods should be used to accomplish distinction and competition. A matter that demands using the system of Total Quality Education to enable the architectural graduates to reach the required levels, both nationally and internationally.

Keywords.

Teaching performance - architectural education - teaching methods

Introduction.

The good education in the era of knowledge is characterized by the ability of creativity, innovation, the use of technology and self-learning, so it is necessary to develop the system of architectural education. It comes parallel with the evaluation of the performance of the lecturer staff. It is one of the most important fields that should be taken because of its importance in improving the level of performance and increases the effectiveness of curricula content, methods adopted in teaching; in addition to it is a measure of recognition of the extent to achieve the goals and mission of the University.

The Problem.

The problem of research is centered on two important and interdependent axes within the architectural education system:

First: There are indicators that indicate the increase in the area of underdevelopment of qualitative and qualitative teaching performance. The Arab Human Development Report on university education and teaching methods indicates that the

quality of education in most Arab universities is below 60% according to established standards. The weak performance of teaching staff was one of the main factors in the low quality of higher education.

Second: There are contemporary trends and experiences in the field of curricula and methods of university education. Many institutions of architectural in need of greater activation with effective ways without ignoring the traditional methods of development and integration with modern methods to improve and develop the quality of graduates to stand on those Contributions and experiences which may contribute to raising awareness and adopting the best according to the possibility of reality. These trends and entrances may require some sections of architecture to review and update their programs and adopt quality standards that determine the levels of graduates and the process of teaching. Modern education has become a necessary requirement to confront the variables of globalization and postmodern concepts and other current developments.

Research questions.

The search problem requires answering the following questions:

1 - What is the importance of methods adopted in improving and evaluating the teaching performance of the university staff ?

2 - What are the ways to be observed by the administrators of architectural education to improve the ways of teaching architecture?

3- Is there a relationship between the development of methods of teaching performance and methods of teaching architecture and performance efficiency of students?

Research aims.

Its first objective is to:

Inform the staff the importance of evaluating the performance of teaching and how to improve this performance and the extent to which the improvement of teaching performance reflected the quality of architectural education.

Its second objective is to:

Shedding light on the most important ways of education and its importance in the development of teaching architecture with a focus on analyzing the relationship between these approaches and the concepts associated with them.

Methodology.

The study adopts a theoretical framework represented in extraction results of the studies that focused on the field of teaching performance and the traditional effective methods of teaching, then apply the framework in the practical study based on an experimental methodology enter it the undergraduate students in which students of the Bachelor of Architecture at the Higher Institute of Engineering and Technology in Kafr Al-Sheikh in 2012/2013 in application of the two articles (the aesthetics of formation, architectural criticism) to test the hypothesis of an effect for instructional performance and effective teaching methods on student performance and to determine the nature of this effect.

Previous studies.

Several previous studies related to the subject of the present study have been reviewed in accordance with the objective of the study. The most important of these studies are:

Al- Gamel's study (2005)

He focused on a number of points that highlight the use of technical teaching aids in the lecture rooms as shortening the professors' time and effort and liberating them from routine work like indoctrination and correction. The study reached to introduce some indicators to activate the use of educational technologies for students of architectural departments as they offer new types of learning without complications, and contribute in providing the architectural student with the ability to think and connect information in accordance with modern curricula

Basiony's study (2007)

This study focused on some of the problems of architectural education, including modern learning methods (cooperative education, e-learning, contracting education), characteristics and methods and types of branching these, and the role of both teacher and learner.

Al- Gamel's study (2009)

This study focused on the role that technical educational can play in the advancement of architectural education, because it has allowed teachers to maneuver in the methods of providing information in the theoretical lectures in order to speed up students' access to the required knowledge. The study pointed out that it is necessary to provide scientific knowledge about the efficiency of employment These means in achieving the different educational goals, and referred to the theory of architecture as one of the specialized materials concerned with narrowing the gap between the theoretical knowledge and the possibility of investing in learning the design process.

Rashed's study (2010)

The study focused on clarifying the importance of replacing traditional methods of teaching with modern technologies techniques. It pointed to the application of the experiment in the UAE on the history and theories of architecture subject, using advanced programs in education like (Blackboard and Net Op).The experiment was enhanced by a survey of students' opinions, which came in line with the new development.

From all the above that previous studies have been subjected to parts of the current research topic directly or indirectly, which strengthens the conviction of its importance, so the entrance of this study is to form a theoretical framework for two main axes (Teaching performance) and its means (teaching methods) because its quality to the system of architectural education, to make a graduate become consistent with global developments and compatible with the requirements of the labor market.

1. Teaching Performance.

Is defined as the degree to which the staff member to carry out the educational tasks and the practices, activities and behaviors related to its various functions as a behavioral expression.[1]

1.1. Staff member.

He is the planner, implementer, facilitator and organizer of the teaching process through his scientific and academic expertise and skills which help him to deliver the scientific material to the student in the easiest and simplest way.

1.2. Evaluation.

Is the process of issuing a qualitative and quantitative judgment on activities that fall within the teaching performance of the staff member in light of the quality standards.[2]

1.3. The concept of assessment for the performance of the staff member.[3]

Is an organized process for collecting and analyzing information, to determining the degree to which educational goals are achieved and decisions taken to address vulnerabilities, and to provide the conditions for integrated growth through the reorganization and enrichment of the educational environment.

University staff assessment has become commonplace in many advanced universities but is rarely considered in our universities. It is believed that this reluctance from evaluating universities staff members' performance is due to an old legacy that academic professors should not be subject to or subject to evaluation, and he has absolute freedom to perform his teaching duties in the manner and how he believes appropriate.

1.4. The importance of evaluating the teaching performance of a faculty staff member.

The evaluation process contributes to the detection of faculty achievements and failures, and encouraging them to develop their competence and teaching efficiency, and in using modern teaching methods, as well as using different means in evaluating their students

1.5. The reasons for not paying attention to evaluating the teaching performance of the faculty staff member.[4]

First, because some of people believe that the university staff members are professional competence because of their scientific qualifications. Although this is not a measure of ability and efficiency in teaching performance.

Second: Promotion of university staff members at the university based on their academic achievement without consideration of their teaching competence

1.6. Methods of evaluation of teaching performance.[5]

- Students evaluation for the teaching performance of the university staff member.
- Evaluation of the deans, agents and head of the department.
- Self-assessment.
- Colleagues evaluation.

1.7. Roles and tasks of staff member at the university.[6]

The roles of the faculty member can be classified in the following main fields as shown in Figure(1) :

A - <u>Towards his students:</u>

It include teaching, evaluation, guidance and supervision of both students' research and studies in the subsequent stages. In later stages including facilitate the process of learning, and the preparation of educational materials

B- <u>Towards the institution in which they works</u>:

It includes administrative processes including participation in decision-making, policy-making, planning programs and plans, participation in meetings and committees and specialized bodies in the university; and representing the university or its colleges in official forums.

C- <u>Towards the surrounding society</u>:

It includes serving the relevant institutions in the local community, spreading the culture, providing consultancy, conducting studies and researches that address the problems which facing the society; strengthening the university's relationship with the local

community institutions and activating the role of governmental institutions in serving the universities' students.

D - <u>towards themselves:</u>

It includes their quest to raise the level of their qualification through the study, research, participation in conferences, organizing visits, attending seminars, training courses and exchange visits with colleagues in other universities.
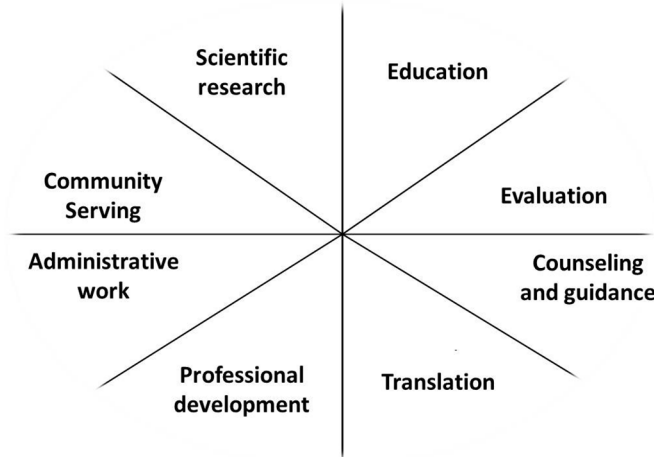

Fig.1, Roles and tasks of staff member at the university

1.8.   Quality of education.
It means achieving the universal standards of TQM or getting closer through several axes as teaching performance of the university staff member and effective teaching methods.

1.9.   Dimensions of Quality of educational service.[7]
The term "quality" related to idealism. The new image of education can only be achieved by meets the conditions of total quality, this is why most countries of the world have been aware of the importance of the issue of education quality and have placed it at the top of their priorities since the 1990s, In Britain that progress and improvement in the economic and social performance in the country depends on the quality of educational service, and the most important aspects of the quality of education are:

<u>First: The axis of the university staff member.</u>
UNESCO explained that the quality of the university staff member means have a competencies related to teaching materials and competencies related to students and others related to the planning of the educational process, management of the lecture, assessment of students and commitment to quality standards in teaching performance as shown table (1)

<u>Second: Teaching and learning axis:</u>
It focuses on describing the teaching process through the following aspects:
- What are the adopted teaching and learning strategies, and what their suitability to the desired goals.
- Available educational and explanatory means.
- The ability of university staff members to make effective use of available teaching aids.
- Using modern tools of communication and information technology.
- The role of students and their participation in the educational process.

Table (1) Quality standards in teaching performance[8]

Quality standards in teaching performance	Planning standards for teaching	- Determining the general objectives of teaching the course and behavioral goals.
		- Identify expected methods to be used in teaching.
		- The distribution of course topics on the time plan logically.
		- Identifying the supporting references to the subjects of the course.
		- Selection of educational activities and educational materials.
		- Put a written copy of the course plan with its objectives, content, activities in the hands of his students
	Standards for the implementation of teaching	- Prepares the lecture well in advance and Defines the general objectives of the lecture.
		- The lecture begins on time and begins with interesting words.
		- The subject of the lecture is dealt with at a level of depth commensurate with the mental development of students.
		- Be careful to read students faces expressions during the lecture and act in light of it.
		- Uses a variety of discussion methods like group discussion, small group discussion and seminars.
		- Assign students to individual and group educational activities and finish the lecture with the end of its actual time.
	Standards of education methods	- Encourages students to use the computer and the Internet.
		- Has the ability to use modern teaching methods during the lecture.
		- Ensures the electronic design of the content of the course.
		- Choose the appropriate method for the topic of the lecture.
		- Has the ability to design and produce some educational techniques.
		- Keep in mind the messages received from students regarding their feelings about the course or the way it is presented.
	Standard of communication with students	- Speak clearly, loudly and use clear language with understood terms.
		- Use varies sound level (high, normal, low) according to the importance of the idea.
		- Be careful to know the names of his students
		- Keep on visual communication with students during the lecture.
		Keep on his emotional balance and stability during the lecture and walk among students with wisdom and activity.
		- Respect the character of students and does not reduce their abilities and emphasizes the instill confidence in the hearts of students.

	Standard of students' learning evaluation	- Use multiple types of evaluation.
		- Encourage his students to provide him with questions during a set of the test.
		- Part of the grades of assessment is allocated to scientific research.
		- Takes into his account the fairness and objectivity in the evaluation of students.
		- Considers the relevance of the content of the evaluation to the objectives of the course.
		- Asking open questions to identify students' thinking.

1.10. The hierarchical structure of faculty members[9]

University staff members can be divided into the following: -

A - Main members who enjoy the academic background: (professors – professors assistant - teachers)

B - Members are in the process of preparing to complete their academic studies:
    (Teachers Assistant - Assistants)

In order to achieve the educational aims, the ratio of university staff members to students should be less than 1: 10 in general. Because of the different of nature of the study in practical colleges, there may be a need to increase the ratio between 1:15 and 1:20.

While there is a shortage in the number of faculty members as a result of the continuous increase in the number of students in Egyptian universities, sometimes up to 1: 40. In comparison to the hierarchical structure in Egypt and the global hierarchy, we find that the ideal hierarchy does not apply to the planning of education in Egypt (Table 2) and the hierarchy is inappropriate and will face many obstacles in the next stage.

Table (2) Comparison of Egyptian hierarchy with the ideal hierarchical

University staff member	Egyptian hierarchy		ideal hierarchical		Attitude in Egypt
Professors	81	17.8%	20	2%	+15%
Professors Assistant	77	166%	35	15%	+1%
Doctors	177	36%	50	21%	+15%
Teachers Assistant	46	10%	70	29%	-19%
Assistant	101	21%	90	38%	-19%
Total	482	100%	235	100	

1.11. Proposals of the Supreme Council of Universities to amend the conditions of university staff members.[10]

- The establishment of a specific functional structure for university staff members in the scientific departments and thus the structure can be completed by appointment and through the announcement of vacancies with the expansion of the recruitment of research students in return for a rewarding.

- Training the new faculty members and qualifying them through the courses of preparing a university teacher and the use of computers and information network and foreign language.

- Organizing workshops for members of the faculty staff to cover the modern and electronic methods in the educational process, which helps to develop the students' abilities to absorb, self-learning, development, innovation, creativity and non- indoctrination. The faculty staff members should be periodically sent abroad to spend time in technological institutions for learning to transfer what they learning to Egyptian universities.
- Setting standard controls to evaluate the performance of university staff members.
- Encouraging university staff members to undertake scientific missions.
- Emphasize the importance of attending the university staff member the international scientific conferences in his specialization once every two years .
- Increase the number of external missions, joint supervision missions and scientific missions which fully funded externally and internally, and commitment to make the missions to distinguished universities and countries with long-standing universities.

1.12. Shortfalls related to university staff members' records.

- The weakness of the regularity of the teachers and some of the assistants due to lack of full-time teaching in the departments of architecture, where the faculty staff member have a burdens like (teaching - the practice of the profession - scientific research), which negatively effects on the process of teaching time.
- The weakness of the participation of faculty staff members in the abroad scientific conferences, because of the universities spend a low expenses for travel, accommodation and registration fees for these conferences.
- Lack of nutrition libraries sections of modern architecture books, references and periodicals.
- The insistence on expanding the acceptance of new students to the departments of architecture without real need for these large numbers because of the lack of development projects to accommodate them, which leads to a violation between the numbers of students and faculty staff members. There is a research paper showed that the proportion of engineers in Egypt is weak compared to regional and international countries as shown in Fig.2, and recommended that the proportion in the future plans should be at least 1%.[11]
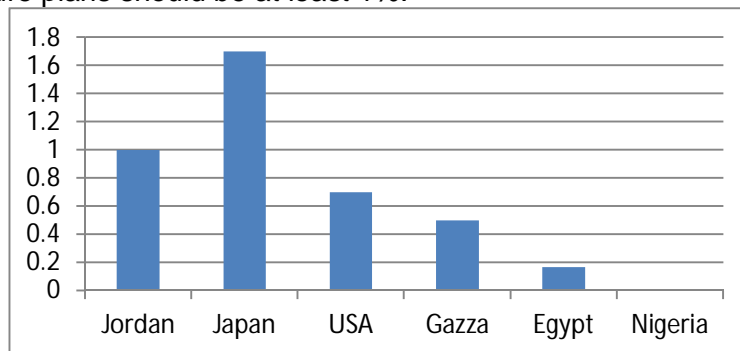

Fig.2, Percentage of engineers to population in a number of countries in the world

2.   Effective teaching methods.

It is a set of procedures, practices and scientific activities carried out by the professor in order to convey information, facts and concepts to the students to achieve the purpose of the educational process.

The methods of teaching vary with the diversity of educational institutions. This is a positive point of the knowledge, emergence new disciplines and the expansion of the content of the courses. It was necessary to determine the rules which make the learner within the educational institutions able to process and retrieve information, and thinking logically, so the focus is on the learner as the main product of the institution to learn for

itself becomes self-taught, and it requires the development of multiple thinking skills And aspects of the whole personality through a strategy and patterns of teaching and learning.

2.1. Teaching and learning process.[12]

Teaching and learning process of the college is based on modern strategies which must use them. Teaching and learning strategies is a complex task, because it requires the teacher to think and compare the available strategies In view of many interlocking variables like learning outcomes and choosing the ways for each educational process, every content, so it requires the lecturer when he apply the teaching strategy to set a plan taking into account the nature of learners and understand the individual differences between them. Lecturer can apply a combination of Strategies, or use one according to the nature of learning outcomes as Fig.3.
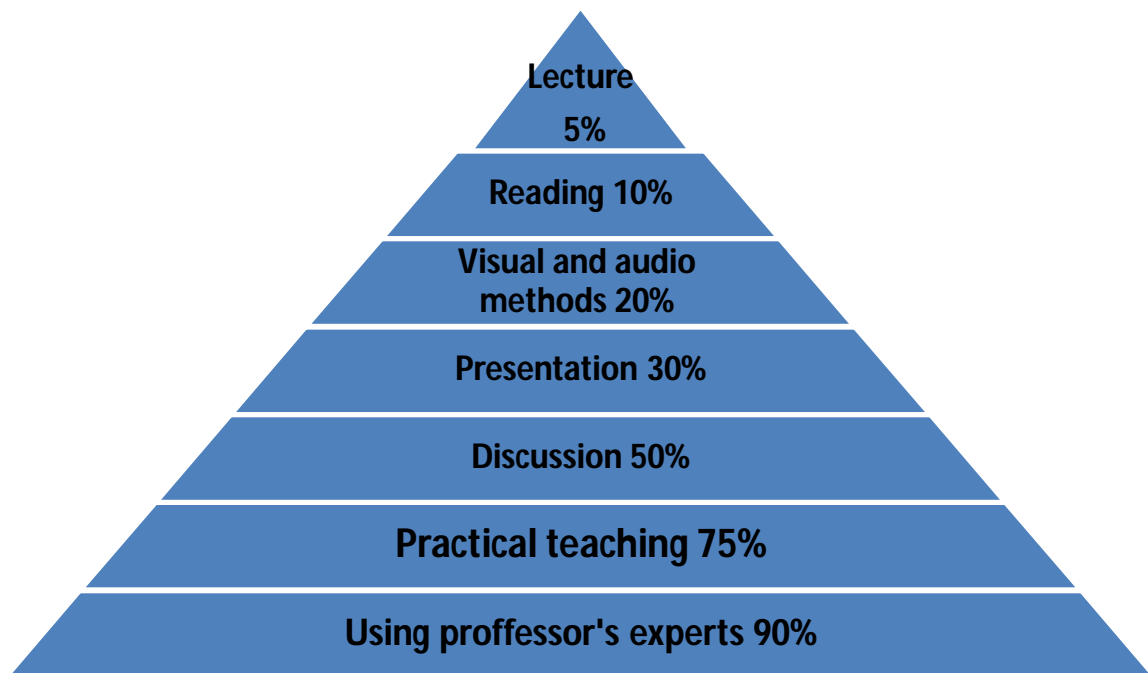
Lecture
5%

Reading 10%

Visual and audio
methods 20%

Presentation 30%

Discussion 50%

Practical teaching 75%

Using proffessor's experts 90%

Fig.3, Learning Effect – Learning Pyramids

2.2. Learning Pattern.[12]

It is known that students learn in different ways. Researches shown that the multiple inputs are working well because if the senses which we use during the learning process are a lot, we will retain information for a longer time and the learners maintain 10% of what they read, 20% of what they heard, 30 what they saw, 50% of what they saw and heard, 70% of what they said and 90% of what they said and did. Scientific research confirms that visual learn is the most common for any other type. Table 3, will show different characteristics of the learner.

Table 3, The different characteristics of the learner

Characteristics of the kinetic sensory learner 05%	Characteristics of auditory Learner 30%	Characteristics of visual Learner 65%
Learn through movement, action and touch	He loves to hear what he learns	He learns better than he does and enjoys reading
He has difficulties with abstractions and theoretical material, and he does not like surprises.	He loves discussions and discusses his ideas verbally	Uses visual materials (maps, images, drawings)
He learn better through the scientific entrance and natural exploration around it	He creates memory aids to help his memorization	Have a clear picture of the teacher when speaking in front of him to see body language, facial expressions
He finds it difficult to sit for long time because of his need for activity and exploration	He uses verbal analyzes and narrative stories to illustrate his point of view	Colors are used to illustrate important points in the text and to illustrate their ideas in images
He prefers to learn the facts, does not like complications, is patient with details and uses stark colors	He learns better by verbal lectures, and interprets the implicit meanings of speech by tone of voice and tune	They tend to sit at the front of the row to avoid visual confusion

2.3. Basic teaching aids and its importance in developing methods of teaching some architectural materials.

Professors select the course and learning strategy according to the nature of the intended learning outcomes. Some outputs may be similar in the use of the one strategy and may differ according to what the student should acquire, and the most important of these methods:

2.3.1. Delivering the lecture Method.[13]

It is one of the oldest methods of teaching, and it is still one of the most common methods so far. In this method, the lecturers give information and knowledge to students.

- **Characteristics:**

- introducing a lot of information in a short time.
- Does not require the establishment of scientific laboratories or the purchase of materials and equipment that University's capabilities unable to provide.
- Provide all students with a minimum of information.
- Provides a calm atmosphere.
- Teaching a large number of students in a specific time.

- **Methods.[14]**

- Install the basic elements of the lecture on the board to help learner following what is said.
- Focus on knowledge learning, especially the remembering process.
- The lecturer can support his lectures by appropriate educational like audiovisual aids.

- **Lecturer Role**

- It is a method closely related to the concept of dictatorial, because the lecturer in this way is only the owner of knowledge.
- This method caused stress and exhausting to the lecturer because he is burdened with the burden throughout the lecture.
- - When the lecturer has a good rhetorical language and a successful presentation method, this will attract students' attention.

- **Learner Role.**

- This method condones the students' tendencies, desires and individual differences.
- The student has a negative role, where the lecturer is the sender.
- Often, lead to the expulsion of students mentally.

- **From the teaching architectural subject point of view:**

- It is possible to take advantage of this method in the teaching the architectural theoretical subjects such as elective subjects.
- It is a good way when the lecturer has practical experience that he wants to transfer.
- The methods of dialogue and discussion can be called as well as presentation of the discussion subject through video or PowerPoint as in the subject of history and theories of architecture, or explaining on models during the lecture as in the aesthetics of the architectural form, architectural criticism subjects. It leads to getting out of the monotony of traditional lecture and achieving response and Student's interaction with the lecturer.

2.3.2 Cooperative Learning Method.

It is a teaching strategy based on the positive interaction among the learners within the group. Each learner appears as an active member who influences and is influenced by the opinions of others, thus giving the learners a large space to discuss and express an opinion to solve a problem or carry out an activity.

- **Characteristics.[15]**

Students are divided into groups of varying ability and scientific background to achieve a common goal. They divided into four stages (understanding the problem - crystallizing the standards of teamwork - productivity - termination). The basic elements of cooperative learning are (mutual interdependence - individual responsibility - face-to-face encouraging interaction - skills) Social)

- **Methods.**

Phase I: Identification phase.
At this stage, the problem or task is discussed, identify its data and what is required to work towards it and the time allocated for joint action to solve.
Phase 2: The stage of crystallizing the standards of teamwork.
 At this stage, it is agreed on the distribution of roles, how to cooperate, determine collective responsibilities, and how to make the joint decision and the skills needed to solve the problem.
- dividing students into small groups.
- Depends on the effort of the teacher and the learner.

- Learning takes place in a social context between groups, between themselves and between them and the teacher.

- **Lecturer Role.**[16]

- Preparing specialized lectures on different knowledge.
- Directing the student to the group that suits him.
- Evaluation the groups of the learner and encourage excellence.
- Providing learner with information at all stages of the work.
- Provide samples of the required performance, in addition to recording all that relates to each student's learning and behavior.

- **Learner Role.**

- Create new ideas and solutions to problems through discussions and dialogues.
- Freedom within groups to express ideas through independent thought.
- Respect the opinions of others through criticism and analysis.
- Achieving the tasks entrusted through the spirit of cooperation.
- Students' awareness that they will pass together or fail together.

- **From the teaching architectural subject point of view.**

This method is best in teaching most of the architectural subjects like urban planning subjects, especially in the field of research and study, and the subsequent discussions and amendments between the professor and the relevant groups, as well as competition in the presentation and stages of work and responsibilities of each student in the group.

Students often see the optional subjects as not the same as the basic subjects, such as design subjects, although the scientific material of each subject is of great importance, especially if these subjects are complementary and supportive of basic subjects. Examples of these optional subjects (Aesthetics of architectural design - architectural criticism - construction economics), so it depends on the handling of these subjects by the professor of the subject.

2.3.3 E-learning method.[17]

It is a tool that supports the process of learning and transforms from indoctrination to creativity, interaction, and development skills. It is aims to create a rich interactive environment with applications combining all forms of electronic teaching and learning.

- **Characteristics.**

It depended on the interaction of the two parties in the educational process through electronic media to achieve specific educational objectives through the applications of computers, communication networks and multimedia to transfer skills and knowledge. It includes applications on the web and virtual classrooms where the lessons' content is provided online. It also includes audio and video tapes. Student can access to sources anytime and anywhere.

- **Methods.**

E-learning leads to rich learning experiences, characterized as:

- Individual: where the information can be tailored to meet the learner needs based on the identification of those needs. It presented in a different way, and therefore feedback provided to the learner is individual and immediate.
- Interactive: Provides an interactive environment that differs from other method.
- Enriching the curriculum: by providing opportunities for exposure to diverse learning activities.

- **Lecturer Role.**[16]

- Selection and preparation of e-learning programs.

- Training learner to use e-learning technology.
- Formulate goals and identify the needs of students.
- Determining the content and activities that needed to learn accurately.
- Follow up the level of progress of students and provide tests in time.
- Follow-up preparation of the learning environment which necessary for this type of learning.

- **Learner Role.**
- Implementation of the commission of lectures which provided through the program.
- Mastering the skills of dealing with e-learning techniques.
- Selection and preparation e-learning programs.
- Always search for interactive e-learning media.

- **From the teaching architectural subject point of view.**

The revolution resulting from the development of computers and communications is one of the most powerful factors affecting architecture in general and especially architectural education. It has worked to make changes in the concept of architecture. After it was considered that architecture as a non-technical specialization, now it is a specialization tends to use technology directly. The result of the mating architecture with technology an architectural trends were not known If the computer does not penetrate architecture, these trends are now known as transformational architecture, Intelligent Architecture, Liquid Architecture, Digital architecture, Cyber architecture and virtual architecture.

In other words, the general framework of the subject of e-learning has been linked to two main aspects, the first of which is behavioral represented by educational attitudes which related to the nature of the communication relationship. The other aspect is subjective, which related with skills and strategies of presentation and presentation.[18]

It has been concluded from several previous studies that to ensure that students do not forget the information that they receive in the theoretical lectures, specifically the history and theory of architecture, they need to refresh their memory with quick and direct tests to ensure the benefit of information which provided in the architectural design and the information advantage is achieved by the picture information.

2.3.4. Self-learning method.[19]

It is defined as a set of actions to manage the process of education to make the learner integrates with educational tasks commensurate with his needs, abilities and levels of his knowledge.

- **Characteristics.**

It is a teaching formula that depends on the student's responsibility and forms of his learning with the help of the professors through written or oral agreement that the parties abide by the terms of this contract.

- **Tactics**
- Diversity: variation of content presentation methods.
- Interaction: is the interaction between students and educational materials.
- Individual: Provide materials and means of science for each learner individually.
- Practice: The actual practice is available to the learner under professors' supervision.
- Self-direction: Developing the learner's self-learning abilities.

- **Lecturer Role.**
- Taking the guidance role for learners within editing the contract or engaging in the studying.

- Select alternatives content, activities and methods of teaching.
- Adopting a greater number of teaching methods.
- Commitment to the implementation of lectures according to different teaching methods which agreed upon.

- **Learner Role.**

- Acting as a negotiator with the professor to choose the best of alternatives.
- The student must be fully aware of his ability to choose his suitable alternatives.
- Commitment to the duties of the contract that he approved.
- Meeting the dates of attendance and receiving tests.

- **From the teaching architectural subject point of view.**

As a result of the development of the digital revolution, and through the computer, many modern engineering programs like Revit, Auto CAD and photo shop are appeared. Which has not been studied in the most faculty of architecture, except some of them recently, which led the students of architecture towards self-education through courses in external centers to meet the labor market requirements?

The negative images of it are private lessons (courses), which taken either to lack of them or from professors who was unable to deliver information clearly.

It is clear from the above that there are effective ways can be used according to the scientific content of subjects and the vision of the lecturer. There are several other ways did not address in the research because it more suitable for drawing subjects like Architectural design which depend on learning by discovery, brainstorming and competitive learning.

3. **Practical Study.**

It is to evaluate the hypothesis of the study that there is a relationship between the development of methods of teaching performance and methods of teaching the architectural subjects, and the efficiency of students' performance. It has been applied by the researcher on Bachelor of Architecture students at the Higher Institute of Engineering and Technology in Kafr El Sheikh on the aesthetics of architectural form subject which provide a verbal information written or readable or information provided by fixed visual images, which supports the theoretical side .this subject had chosen because of its directly impact in the practical aspect of the design process, and because it related to more than one architecture subject like history and theories of architecture, architectural criticism and architectural design.

The experiment began with three consecutive lectures in the form of verbal readable information, in addition illustrations on the board, which may be due to the nature of the scientific content of the article (traditional lecture).

Before the end of the lecture, a simple written test was conducted for the students on the information given in the previous lectures. After the completion of the test, the total number of students was 36 divided into 4 groups. they balanced divide based on. Students' intellectual and scientific levels, where three main subjects were identified:

A - The foundations of the architectural formation.

B - Trends of architectural beauty.

C- Architectural expression.

(The same topics that were dealt with in traditional lectures), where each of the three study groups take one of the raised topics.

The idea of the experiment is to combine the method of collaborative learning with e-learning to try to stimulate all the senses during the reception of the information. In the

beginning, students were introduced to the nature of the scientific content of the subjects, its objective and its positive response to its efficiency in architectural design during study If the content of the scientific content is properly understood, and therefore the conditions for all groups are defined as follows:

- Determine the tasks of each student in each group, whether in the collection of information or in the order of axes of the subject and presentation.
- Ask groups to use programs such as visual aids and presentations, like Power Point.
- set up a date for all groups to deliver their researches in hard and soft copy, and discuss them, and then perform a simple test after the presentations, this test is close to the level of the first test.
- A weekly follow-up of groups was set up to guide and address errors through seminars, and it will be through two important strategies brainstorming, individual and group competitive learning to create effective interactions among students.
- After the completion of the second test was asked, three verbal questions were asked on the total of students on the experience of the groups they fought and were as follows:

　　Question 1: Do you prefer the traditional lecture style of the first three lectures?
　　Question 2: Do you prefer the group style as you did in this study?
　　Question 3: What is your assessment of the teaching performance of the professor in both cases?

3.1.　Difficulties encountered in the experiment

- Need for extra time outside the allotted time for the subject.
- Students return and rely on brief notes from the professor as one specific source of indoctrination.
- the absence of training on criticism and evaluation, as well as the preferring individual work in the survey of information, analysis and presentation.
- Frequency of the sources of information in the same subject as most students rely on the Internet for speed and ease.
- Barrier shyness and convergence in the discussions and the final presentation, especially female students.
- Obsession on what they will do in the semester's exam because all this effort represents only 30% of the degree of subject.
- concentration and exaggeration of some groups on the technical dazzling and advanced programs in the presentation of content.

4.　Results

4.1. Result of theoretical Study

- Evaluation of the teaching performance of the faculty staff member has become an urgent need to achieve the quality of education and to identify the strengths and weaknesses, and there are several methods used to conduct such an evaluation.
- The many roles and tasks entrusted to the faculty staff member have negatively effect on his achievements in the field of scientific research.
- There is a defect in the hierarchy of the faculties of architecture in Egypt.
- There is a defect in the proportion of students to faculty staff members as a result of the increase in admission of students in architectural education.
- There are many ways of teaching in the educational process between the traditional way like (lecture) that needs development, and the effective methods that need to be activated like (cooperative learning, e-learning, self-learning).

- The development of education depends on the student by discovering the information from different sources in an attempt to understand how to employ them, and then try to re-employ them using his convictions in his analysis.

- Some of these methods can be employed in the teaching architecture according to the nature of each subject or the combination of more than one method.

- Architectural subjects have recently become a trend towards technology, which has led many students of architecture to the direction of self-education to compensate what they didn't found in the departments of architecture and to keep pace with the labor market at home or abroad.

4.2. Results of the applied study.

First: For the results of the two tests.

- The results of the first test which conducted after the first three traditional lectures with verbal information as well as illustrations on the board showed an average of 59%.

- The results of the second test, which followed the group shows, with an average of 88%.

Second: Regarding the results of voting on oral questions:

- The difficulty in the experiment in its early stages stems from the return of students to teach the theoretical subjects in a manner of indoctrination, which prevents them from identifying the various factors that cause these principles and theories.

- In monitoring the students' vote on the first oral question, it was found that 35% prefer the traditional form of the lecture, and asking them why?, they answered because it is an individual work and has no problems and get used to the summaries.

- The second question is that 63% prefer to take advantage of the information during this experiment (effective teaching methods). When asked about the reason, they answered that they provided the opportunity for discussion and dialogue during the group and with the article professor.

- The third question poll said that 75% believe that the teaching method in the second case is better than the first (traditional).

5. Recommendation

- Adoption of standards of quality teaching performance is a key focus in the granting of scientific promotions and not to adopt scientific research is the sole focus of this, in addition to provide faculty staff members with material and moral incentives for the university outstanding in their teaching performance.

- set up a new mechanism to achieve new methods of assessment like self-assessment, evaluation of students and peer evaluation.

- Diversifying the teaching methods used, especially collaborative learning and e-learning to achieve the desired goals.

- Encourage students to criticize and express their opinion and the prevalence of the atmosphere of democracy and distance from authoritarianism.

- The lecturer is require making a systematic planning and strategy taking into account before the implementation of teaching taking into his consideration the nature of learners, their understand levels, the individual differences between them, benefit from learning patterns and their impact on the senses of the learner.

- Filling the current gap between the proportions of students to faculty staff members as well as modify the imbalance in the hierarchy of architectural staff members in Egypt.

- The first stages require a combination of automatic education and technical education, and effective methods can be moved later.

- Provide advanced courses for drawing, design, management and other programs to encourage self-education.

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