# Re-Exploring Learning History of Architecturefrom the Student's Point of View

**Yasser Osman El-Gammal, Sanaa Ibrahim Abd El-Maksud**

School of Architecture, Faculty of Engineering, Zakazik University, Zakazik, Egypt

**Email address:**

yelg1967@gmail.com (Y. O. El-Gammal), sanaamaksud@yahoo.com (S. I. A. El-Maksud)

**Abstract:** $1^{st}$ year architecture students of today are far more knowledgeable about architecture than the $1^{st}$ year architecture students of the past. They came to their first architecture classes already equipped with architectural information they gathered from the internet, and media.Unlike students of the past who happened to come to their first year architecture classes with enthusiasm and interest in architecture only, and with a little information gathered about what they will be learning. Social media has become a universal lounge gathering everybody from all around the globe where they can exchange, share, and express their opinions freely without suppression or barriers. In a world like this; it is not wise anymore especially among educators to insist on applying the "One-way" transform of knowledge communication model in teaching and learning since – within such environment – it has become difficult to suppress students' voices and opinions, as that will be having its negative impacts on the development of education theories and methods.The research paper investigates students' opinions, suggestions, and feedback about whether typical learning phases that they usually pass through until finishing learning "History of Architecture" are enough for them to gain full awareness about the subject,or that there are additional learning stages, or activities that should be added to the typical learning phases in order for them to gain complete awareness, and full satisfaction about the taught subject.Since the research goal is to explore new and innovative learning ideas for the purpose of improving quality of learning "History of Architecture", the research has adopted a simple approach in investigating students' opinions by collecting data through survey forms with questionnaires designated specifically for the purpose.

**Keywords:** History of Architecture, Ancient Buildings, Historical Buildings, Learning Ancient Architecture, Monumental Architecture

## 1. Introduction

Modern theories of education is looking for new means of increasing level of interaction between teachers and students, yet learning is still heavily depending on "One-way" transfer of knowledge from the teacher to students. Since course content is always mapped prior to starting class sessions by the teacher only. Although it is necessary to decide what topics will be learned before starting a class; Nowadays, and especially in the age of internet where all young generations are exposed to diverse and extensive information that increase both their judging and criticising abilities, this typical learning theme has started to show its drawbacks as it appears to be completely "Teacher-Centred" and not "Learner-Centred". [1,2]

Unlike the Design studio; Teaching an architectural subject of a theoretical nature like "History of Architecture" is a complete "One-way" communication learning model between the teacher and students, as the area allowed for the student to innovate, or even criticize is very limited, since history cannot be altered."History of Architecture" involves a very static experience with little space for interaction or "Two-way" communication between students and their teachers.

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[1]"Teacher-Centred" is an expression meaning that the course content, or syllabus is fully designated by the teacher and that the learners or students do not have the chance to say their opinions about the topics they will be learning

[2]"Learner-Centred" is an expression meaning that learners or students were allowed to participate in creating and deciding the course topics and content they will be learning

# 2. Method

## 2.1. Literature Review

It is important for readers to note that literature introduced in this paper:

Is planned in a manner that keeps focusing on re-exploring learning history of architecture from the student's point of view and not from the teacher's point of view. This may justify the use of word "Learning" instead of "Teaching" in the title of the paper: (Re-Exploring "Learning" History of Architecture from the Student's Point of View).

Investigation in this paper is intended to highlight one paradox only introduced to students in the form of a single structure query that asks: "Are students Satisfied or Not Satisfied" with the learning phases of the subject?", the reason may be due to a "De-Facto" that teachers usually do not give much attention, or care to the student's overall and final "Satisfaction" about a course they learned, (Not their opinion or feedback within the context of a standard course evaluation report), since students represent the passive side when interacting in a "One-way" communication learning theme with their teachers

An "Overall student satisfaction" about a learned topic is one thing, and a "Student's opinion and feedback in a standard course evaluation form" is another. A generated report collected from students' standard course evaluation forms with positive feedback,- is not necessarily indicating the students' final satisfaction about a learned topic.

Since students' overall and final "Satisfaction" about a topic they finished learning, is the main concern of the research; forms created for collecting data in this paper are not intended for the purpose of; developing, modifying, or adding; new, or missing questionnaires to a standard course evaluation surveying form, nor they investigate modern theories of education.

In order for the paper to fulfil its goals; and also to keep students (Who will be participating in the survey) from distraction in excessive details about the course, teacher's performance, and/or any other issue that (In general, may be under the subject of architectural education but might be of an indirect relevance to the main concern of the research), - accordingly, both survey forms and their questionnaires were intentionally designated in a simple, short, and straight forward manner that keeps students - focusing on the main concern of the research, and only revolving around the learning phases they pass through during learning "History of architecture"

## 2.2. Goal

The goal of the research paper is to explore new and innovative learning ideas for the purpose of improving the quality of learning "History of Architecture", through investigating students' opinions, comments, and feedback about the traditional learning phases that they usually pass through until finishing learning "History of Architecture". Searching the possibility of improving the learning process of "History of Architecture" – from the student's perspective is a positive step towards changing its theoretical nature into a more interactive experience that is shared between the teachers and their students, since students remain passive receiving information from the teacher in a "One-way"communication format

## 2.3. Scope

The research paper is exploring the context of student's "Satisfaction" about the learning process of the "History of Architecture" – in specific, and not exploring the subject from a typical approach; Where aspects that are usually studied by architects for the "History of Architecture" or historical buildings such as: Aesthetic values, building technologies, construction materials, etc., since such traditional investigations have been extensively and successfully covered in other literatures and researches

## 2.4. Investigations

The research investigated opinions of individual units selected from a diverse realm of architecture students. Samples are varied from students with "First time" experience about the learning process of "History of Architecture" to those who already experienced "In-depth" study of the subject. Survey forms were designated with the following aspects in consideration:

### 2.4.1. Focus

Data collected through surveying forms focus on reflecting student's "Satisfaction about the learning phases only" and not about any other matter that might be relevant to "History of Architecture" which may deviate the research speculations from its main goal.

### 2.4.2. Simplicity

Form questionnaires are intended to be straight forward, simple, and brief in a "Yes or No" manner, as such format prevents students from being distracted into details from the subject that is under investigation by the research

### 2.4.3. Flexibility

It was not intended to be obligatory on all students of the four years of architecture study to participate in the survey, the decision was left for every student to voluntarily and freely participate in the survey, this is to avoid embarrassment between students and their teachers, as the later may take opinions of some students offensively

### 2.4.4. Added Value of Speculated Research Outcome

It is expected that students opinions and suggestions for improving learning process, course content, and teaching methods are taken in consideration, as the more students are encouraged to engage in the formation of curricula, the more the quality of the learning process will improve.

# 3. Result

Survey results were divided into three major categories (A,

B, and C) according to students' level of satisfaction: - that are classified under each sample of students (Three students samples were taken from the "1st", "3rd", and "4th - Graduation year" students of the school of architecture respectively, and where history of architecture syllabus is extended over these three years):

Category (A) Results:

Category (A) represents satisfied students - who see that the acquired four learning phases of "History of Architecture" are enough for them to reach awareness about the taught subjects, whether they mentioned the reasons for their satisfaction or not.

Category (B) Results:

Category (B) represents unsatisfied students - who see that the acquired four learning phases of "History of Architecture" are not enough for them to reach awareness about the taught subjects, whether they mentioned the reasons for their un-satisfaction or not.

Category (C) Results:

Category (C) represents students whose survey results were exempted from the study due to irrelevance of their answers to the subject of the research

### 3.1. First Year Students' Sample Survey Results

Thirty one students out of Thirty one from the 1st year of architecture study participated in the survey; they shared their feedback, opinions, and suggestions for improving the learning process of the "History of Architecture" as follows:

#### 3.1.1. Category (A) Satisfied Students

[12] Students see that the learning phases acquired in the form were enough for them to gain full awareness about the subject, however, they did not gave an explanation on why they feel satisfied with the acquired learning phases

#### 3.1.2. Category (B) Un-satisfied Students

(i)   [1] Student expressed the need for guidance on how to do a "Smart pre-research" about the topic that will be taught before the beginning of every lecture, in addition to the learning phases acquired in the form, however this student did not explain what is meant by "Smart pre-research"

(ii)  [5] Students expressed the need for integrating E-learning techniques in the learning process of the "History of Architecture" together with the learning phases acquired in the form

(iii) [1] Student expressed the need for integrating social media in the learning process of the "History of architecture" together with the learning phases acquired in the form

(iv)  [1] Student suggested that the teacher should find a way to make such theoretical topic like that of the "History of Architecture" responsive to the requirements of the job market

(v)   [1] Student suggested that the teacher should find a way to make smart assignments that allow students to think and criticise ancient architecture and historical

buildings during their learning "History of Architecture"

(vi)  [1] Student sees that learning about ancient buildings is much dependent on pictures and images introduced to students in teacher's presentations, and suggests that the teacher should ask students to build 3Dimensional mackets for some, or parts of the historical buildings in order to get more understanding especially about their building technologies, like for example; how an old big dome is stable, or how a minaret is erected, and how come it is still surviving the effect of earthquakes and the test of time till this age.

(vii) [4] Students were not satisfied by the acquired learning phases, but they did not provide any feedback concerning reasons why they are not satisfied, nor suggestions to improve the learning process of the "History of Architecture" in order to become satisfied.

#### 3.1.3. Category (C) Exempted Students

[5] Students forms were exempted from the survey result as their answers to the questionnaires seem to be irrelevant to the research subject.

### 3.2. Third Year Students' Sample Survey Results

Fifty seven students out of eighty one from the 3rd year of architecture study participated in the survey; they shared their feedback, opinions, and suggestions for improving the learning process of the "History of Architecture" as follows:

#### 3.2.1. Category (A) Satisfied Students

[43] Students see that the learning phases acquired in the form were enough for them to gain awareness about the subject, however, they did not gave an explanation on why they feel satisfied with the acquired learning phases

#### 3.2.2. Category (B) Un-satisfied Students

(i)   [1] Student suggests that virtual reality and/or Holographic technology should be associated with the learning process as means of modern presentation techniques

(ii)  [2] Students suggest that the four acquired learning phases should be combined together and held on site or during their visits to ancient sites, and not inside lecture rooms

(iii) [1] Student expressed the need for integrating E-learning techniques in the learning process of the "History of Architecture" together with the learning phases acquired in the form

(iv)  [3] Students see that open group discussions and team work presentations should be extensively integrated with the acquired learning phases

(v)   [1] Student suggests associating site visits of historical buildings with a specific event, a story to be narrated by the teacher, a situation, or a nice memory.

(vi)  [2] Students suggest that the teacher should

encourage self-learning techniques parallel to the four acquired learning phases.

(vii) [1] Student suggests that "History of Architecture" course material should be supported by documentary videos about historic buildings

(viii)[1] Student suggests that the teacher should bring and use real samples like for example from the building materials used in historical buildings instead of depending on introducing such materials in the form of pictures in books or computer presentations only

(ix) [1] Student was not satisfied by the acquired learning phases, but did not provide any feedback concerning reasons for not being satisfied, nor suggestions to improve the learning process of the "History of Architecture" in order to become satisfied.

### 3.2.3. Category (C) Exempted Students

[1] Student form was exempted from the survey result as answers to the questionnaires seem to be irrelevant to the research subject.

### 3.3. Fourth Year Students' Sample Survey Results

Twelve students out of seventy two from the 4th year of architecture study participated in the survey; they shared their feedback, opinions, and suggestions for improving the learning process of the "History of architecture" as follows:

### 3.3.1. Category (A) Satisfied Students

(i) [7] Students see that the learning phases acquired in the form were enough for them to gain awareness about the subject, however, they did not gave an explanation on why they feel satisfied with the acquired learning phases

(ii)[1] Student sees that the learning phases acquired in the form were enough for gaining awareness about the subject, and that he did not find any difficulty neither in the learning process, nor in understanding the subject, he also did not find differences between what was taught inside the lecture room, and what was seen in site visits

### 3.3.2. Category (B) Un-satisfied Students

(i) [1] Student requires that samples from artworks, architectural motifs, decorative items, patterns, or special architectural elements found on historical buildings should be facilitated by the teacher if possible rather than depending on introducing such elements through books and/or images

(ii) [1] Student suggests that "History of Architecture" course material should be supported by both documentary videos about historic buildings, and virtual reality technologies. The student claim that integrating such learning techniques will help students better memorizing taught information

(iii)[1] Student suggests that "History of Architecture" topics should be presented in a stronger visual manner.

### 3.3.3. Category (C) Exempted Students

[1] Student form was exempted from the survey result as answers to the questionnaires seem to be irrelevant to the research subject matter.

## 4. Discussion

### 4.1. Overview

Teaching methods are always under debate among educators, some teachers see traditional teaching styles where the teacher speaks and students listen is the best method for building skills and transfer of knowledge to their students, others encourage more interaction with their students in a non-passive learning environment. Applying psychology in education failed to provide reliable solutions to the day-to-day problems that the teachers encounter, nor improve the way teachers think about their teaching styles [1, 2]

Moreover, the majority of teachers experience difficulties in integrating the students' need for personal character development,- with technical content of the syllabus they introduce to their students. This aspect distinguishes the difference between teaching as a practice or experience, and pedagogical engagement [3] [3]

Educators have extensively discussed learning problems and suggested many theories in their attempt to introduce more effective learning models, on the other side; Students summarize the problem from their own perspective according to what they feel in simple phrase; "We are satisfied/We are not satisfied". They "Simply do not care" about these detailed in-depths that are introduced by such theorists, academics, and/or educators". They "Do care" only about how much knowledge they gain and acquire during their overall process of personal and self growth

### 4.2. Disadvantage of One-Way Communication

The main disadvantage of "One-way" communication is the lack of students' feedback that is crucially important for evaluating the learning process. Although several international quality education associations have developed many forms surveying students' feedback about the course and quality of teaching, most of the questionnaires found in the majority of these forms are revolving around: (a).Teacher's capability, and capacity for the taught material, and overall teacher's performance. (b). Relevance of content to the topic of the course. (c). knowledge acquisition and level of understanding of the student.

Moreover, the majority of higher education institutions like universities and higher institutes tend to lose marks when assessed by quality education agencies due to lack of, and unserious considerations of students' views, nor allowing their engagement in the education process [5]

It is possible to receive a positive feedback from students for the above general acquisitions but on overall, they might be still unsatisfied. This is due to the fact that most of these forms are focusing on the above general issues without clearly and directly asking students:(a). Whether they are

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3"Pedagogy" is the theory, method, and practice of teaching. Reference: [4]

satisfied or not with what has been taught and learned. (b). Or at least asked them; not only for their opinions, but also for their own critical judgments. And,(c). Whether if there is still "Something" missing that should be added to the learning process before the course reaches its end.

### 4.3. Plain Sense and Importance of the Two-Way Communication Model

It is essential for graduates to possess communication skills as they are crucially required in the workplace. Many graduates with studies of a very technical nature (Where there is a little room for learning soft skills in their academic load), - like for example; engineering disciplines, students wish they would have learned, and reported the need for developing their personal communication skills during their undergraduate study of engineering. The problem with implementing the "One-Way Communication model" in teaching (Where students remain passive), - is that it suppresses and weakens the students' ability to express themselves. And in some cases, it may lead to serious personal communication disorders, especially when students happen to deal with a stiff-character or a dictator teacher [6-8].

Moreover, Studies showed that students' lack of motivation in class were mostly due teacher's stiff behavior, and neglecting students' opinions on the learning process. On the other hand, experienced teachers ask students about what they expect from learning a specific course, and plan their lectures and topics carefully taking in consideration the learning outcomes that students speculate before starting classes [9, 10].

Educators who believe in, and practice a "Two-way" communication learning theme think that when they allow students to ask questions in class, or work in group projects and lab assignments, or share an essay or a report; will resolve the issue of their students' being satisfied, although this learning model may increase the level of interaction between teachers and their students, and may also stimulate, or add excitement to the learning environment. However, there are no guarantees that this effort may fulfill the student's complete satisfaction. The reason may be also because educators still avoid and afraid of being criticized or judged by their students, which unfortunately, and from their own perspective may put them in great embarrassment or resemble a threat to their career as teachers in case their students' feedback are taken seriously

### 4.4. Survey Samples Selection Criteria

The "History of Architecture" syllabus varies from one architecture school to another, in some architecture schools students cover the topic in their $1^{st}$ year of study only, and in other schools they learn it in two years; their $1^{st}$, and $2^{nd}$ or $3^{rd}$ years of study. For the survey to cover such variation in the "History of Architecture" syllabus; Students samples were planned so that the survey feedback reflects their "First-time", "During", and "After" course experiences. Students

participating in survey were selected from the: $1^{st}$, $3^{rd}$, and the graduation/final year respectively. [4]

### 4.5. Survey Forms Structure and Questionnaires

#### 4.5.1. Structure

The survey is designated to cover three simple conditions of awareness about any learned topic specially that of a theoretical nature like the "History of Architecture".Unlike a design studio where students have the chance to express their innovative ideas through the design concepts they introduce; Learning "History of Architecture" has a tendency towards the "One-way" communication learning theme due to the theoretical nature of its topics.

#### 4.5.2. Questionnaires

In order to maximize the outcome from learning such topics, some teachers ask their students to write essays, visit old building sites, and write reports. Such reports are usually exploring the taught or visited old building: Materials, construction technologies, architectural vocabulary, and the cultural and social features that are reflected on the architecture of its age. [11, 12]
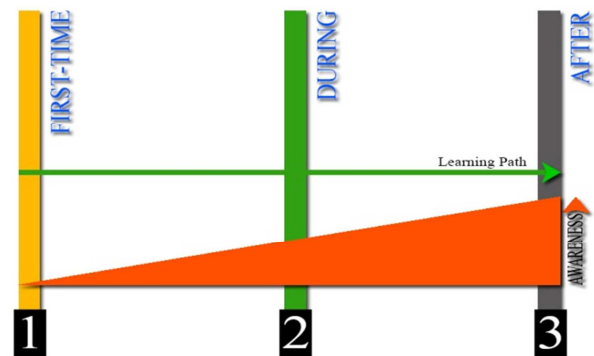


***Figure1.*** *Is a diagram showing three simple conditions of awareness about any learned topic especially that of a theoretical nature like "History of Architecture". Reference: [Researcher].*

Instead of asking typical questions regarding: Building materials, construction technologies, architectural vocabulary, and the architecture aesthetics of its age; the main concern of the form is focusing specifically on two major inquiries:

(i) First Inquiry: Whether the following four phases were enough for learning "History of architecture": (Phase 1): Students prepare an essay about a specific topic in "History of architecture" then discuss it in advance with their teacher before the later starts lecturing about such topic. (Phase 2): Then after the discussion students receive their first or preparatory lecture in

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[4] Survey forms were distributed over the $1^{st}$, $3^{rd}$, and $4^{th}$ (Graduation year) students of the school of architecture, at the Faculty of Engineering, Zagazig University, the provincial university of Sharkeya province, Egypt, Where the "History of Architecture" syllabus is taught in the $1^{st}$, and $3^{rd}$ years of architecture study. The survey is carried on March 2018, after two site visits to monumental buildings; the first trip was made by the $3^{rd}$ year students, and the second by the $4^{th}$ year students, while no site visits were assigned to $1^{st}$ year students who are involved in survey.

"History of architecture". (Phase 3): Followed by selecting an old building site to visit together with the company of their teacher. (Phase 4): And finally students were asked to write a report describing the visited building in terms of: Building materials, construction technologies, architectural vocabulary, cultural and social features that are reflected on the architecture of its age, and any other aspects that their teacher asked them to report from a detailed perspective.

(ii) Second Inquiry: Students were asked to mention the reasons why, and describe how an additional learning stage should be; If they find that the above four stages of learning "History of Architecture"are not enough, and that a fifth step should be added in order for them to gain complete awareness and full satisfaction about the taught subject

### 4.5.3. Form (1)

In survey form (1); Students of the 1st year were asked about their opinions in learning "History of Architecture" from a "General" perspective as the topic was introduced to them for the "First time".



*Figure 2. Is showing survey form (1).Reference: [Researcher].*

### 4.5.4. Form (2)

In survey form (2); Students of the 3rd year were asked about their opinions "During" their in-depth learning of "History of Architecture" including a trip to the famously known "Al-Fostat" area or "Old-Cairo" of Egypt.

"Al-Fostat" is one of the most worldwide major tourist destinations where a "Religious Complex" holding monumental buildings and old areas representing the world three great religions: Judaism, Christianity, Islam, and some Roman and Babylon fortresses (The "Ben Ezra" Synagogue, the "Hanging Church", "Amr-Ibn El-As" and "Ibn-Tulun" mosques, and many old churches and ruins of Roman and Babylon fortifications), and with the company of their teacher





**Figure3.** (Top), Is a Google map showing the "Fostat" or "Old – Cairo" area in Egypt. (Bottom), Is an Arial view Encompassing "Old – Cairo". Reference: [13], [14].



**Figure4.** Is showing survey form (2). Reference: [Researcher].

### 4.5.5. Form (3)

In survey form (3); Students of the 4th (Graduation) year were also asked about their opinions after they have "Finished" learning "History of architecture" in their 3rd year.

Since their 4th year represents their final year of study; they will not be able to, or have a second chance to learn more, or cover what they might be missing, or still in need to know; in order to develop more knowledge and awareness about the subject, and even if they manage to visit more monumental sites without being assigned to do so, and on their own free choice.



**Figure5.** Is showing survey form (3). Reference: [Researcher].

Students arranged for a five-day long trip to the "Nubian" museum, as well as other places in "Aswan" of Egypt [5], then they continue their trip to "Luxor" where they visited the "Karnak", and "Hatshepsut" temples, the "Valley of the kings", the "Luxor Sound & Light", and the "Hobo", and "Luxor" museums. [6]



**Figure 6.** Is a map showing the students' route of their five-day long trip from Zagazig University to Luxor and Aswan in Upper Egypt. Original Map is retrieved from Google maps, arrow lines representing. Routes were added by the researcher.. Reference: [15]

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5 Students also visited both the "High dam"and "Water tank" in "Aswan"

6 Original Google Map of the students' trip is retrieved April 2018 from: https://www.google.com.eg/maps/dir/Zagazig+University,+Shaibet+an+Nakareyah,+Markaz+ElZakazik,+Ash+Sharqia+Governorate+44519/Aswan+Governorate/@26.7753866,27.6493941,1472367m/data=!3m2!1e3!4b1!4m13!4m12!1m5!1m1!1s0x14f7f0541f6712bf:0xb91a32de0d349d2c!2m2!1d31.4827891!2d30.5877119!1m5!1m1!1s0x14367b5c59d76343:0xde8fdc9fa5c3881d!2m2!1d32.8084496!2d23.0855398

# 5. Conclusion

## *5.1. Student's Participation in the Survey*

For the category of students who did not provide any feedback whether satisfied or not with the acquired learning phases; this could be due to the reason that they might be afraid of expressing their opinions freely, which may be embarrassing, or might be taken offensively by their teachers.

For the category of students forms that were exempted from the survey results as answers to the questionnaires were irrelevant to the research subject, their answers were not focusing on the subject of the form rather than they used the form as an opportunity to express the need for making maintenance to currently used overhead projectors, available learning equipments, and other department resources.

However, for the category of students who expressed the need for additional learning activities or phases that should be added or integrated with the acquired learning phases, their feedback may be summarized in the following:

### *Smart Pre-Research*

Students could possibly mean by "Smart pre-research" about the topic that will be taught before the beginning of every lecture - is to apply a better searching techniques for the purpose of speeding-up searching results, and saving excessive time consumed in a typical research activity that is usually based on references provided to them by their teachers.

### *Applying E-Learning Techniques*

The need for integrating E-learning techniques in the learning process of the "History of Architecture" as means of saving time consumed in going back and forth from the university in order to attend a lecture for a simple theoretical architectural subject. Recently, many teachers use E-learning modules installed in their university computer systems for such purpose. Others, use "Google Suite for Education" that is available for free use for the same purpose

### *Use of Social Media*

The need for integrating social media in the learning process of the "History of Architecture". Millions of people spend more time on social media than ever before, they find it entertaining to the point that it has become almost addictive. Recently, there are several researches conducted for addressing addiction to social media especially by young generations. Students frequently check social media even during lectures more than accessing the internet for researching subjects needed for their studies.

### *Matching Job Market Requirements*

Students requested linking "History of Architecture" to the requirements of the job market. Many graduates of architecture claim that it would have been more beneficial if a lot of what they learned during their undergraduate architecture program could have been substituted with topics that are more close to the requirements of their professional practice. Bridging the gap between academic programs and the need for learning skills required by the job market is still a hot topic that is globally under debate. Many schools of architecture in Europe and the United States started creating syllabi in attempts to solve this problem. One of the most recognizable attempts in this endeavour is the "Erasmus" program under the auspices of the European commission.

### *Learning through Smart Assignments*

Students requested introducing assignments in a way that allow them to express their own judgements on historical buildings rather than accepting the subject "As is". A theoretical subject like "History of Architecture" does not allow for student analysis due to its factual nature, since history cannot be changed, neither historical buildings, even restoration and conservation architects treat historical buildings delicately.

### *Building 3Dimensional Mackets of Historical Buildings*

Students feel that creating 3Dimensional mackets of a historical building parts or pieces will help them have a better understanding of its building technologies, materials, and other aspects. The reason many "History of Architecture" teachers are not asking their students to build such mackets is because they are usually full of fine decorative details that is difficult to be hand-made by their students, time consuming, and if students will be using 3D printing technologies to save effort and time, they cannot manage to minimize their large cost.

### *Applying Virtual Reality Applications and Holographic Technologies*

Students who requested using such technologies in introducing historic information and buildings – claim that using traditional presentation techniques is; for some people "Boring" – while using such modern technologies is more attractive and entertaining to the extent that it will make it easy for them to memorize the topics they learn. Recently, some educational institutions are starting to consider applying such technologies; like the "LBJ Presidential Library" in association with the "Texas State History Museum" [7].

### *Lecturing on Site*

Students requested that "History of Architecture" should be lectured on site and not inside lecture rooms. They claim that site visits to ancient buildings is an "Immersive" and "Rich" learning experience more than watching images and pictures of a historic building in a static presentation.

### *Open Group Discussions and Team Work Presentations*

Students feel that conducting group discussions and team work presentations allow for a greater area of exchanging information and enrich the learning process when extensively integrated with the acquired learning phases

### *Associating the Learning Process with an Event or Situation*

Students suggest associating site visits of historical buildings with a specific event, a story to be narrated by the teacher, a situation, or a nice memory. They feel that it is easy to memorize a piece of information when associated with a nice memory, happy situation, or picnic

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7 The LBJ Presidential Library is opened in 1971, and located in the University of Texas campus in Austin, Texas. In 2012, the library partnered with a virtual reality company called "Cortina productions" for the purpose of creating multimedia educational materials that will be introduced in virtual forms in many exhibits, and in the "Texas State History Museum" in Austin, Texas, USA.Reference: [16]

*Applying Self-Learning Techniques*

Students see applying self-learning techniques is important as it is going to be their tool for extending their learning experience of the "History of Architecture" after their graduation

*Supporting Learning by Documentary Videos*

Students suggest that "History of Architecture" course material should be supported by documentary videos about historic buildings, since it is easy for the teacher to select from the vast recourses that are available on social media like "You-tube", and since it is also extensively watched by the generations of our time where they have become familiar with, and get used to the social media environment

*Introducing Real Building Samples from Site in Lectures*

Students suggesting that the teacher should bring and use real samples like for example from the building materials used in historical buildings, artworks, architectural motifs, decorative items, patterns, or special architectural elements; instead of depending on introducing such materials in the form of pictures in books or computer presentations only, as exploring real samples allow them to grasp real understanding about materials used and building technologies of historical buildings

*Requesting Stronger Visual Presentations*

Students suggest that "History of Architecture" topics should be presented in a stronger visual manner. They claim that it is easier to memorize a piece of information that was strongly visualized than being introduced in the form of a static image, or placed in a textual format, since the human brain is faster in recalling visual sceneries than verbal information

### 5.2. Noticeable Research Findings

*Innovative Ideas*

One of the most noticeable research findings is that the majority of innovative ideas and creative suggestions for improving the learning process of "History of Architecture" came from students of the 1ˢᵗ year of architecture study, who are supposed to be at the very beginning of their learning stages, and who have not yet formed a knowledge ground about the subject; Unlike those of the 3ʳᵈ or the 4ᵗʰ year students who already have advanced learning experience, and became aware of "History of architecture"

*Considering Students' Opinions*

It is recommended that students opinions and suggestions for improving learning process, course content, and teaching methods should be taken in consideration, if educators are really serious and honest in their quest for improving the quality of education, - in general, and for learning "History of Architecture" in specific.

*Students' Engagement in the Formation of Curricula*

The more students are encouraged to engage in the formation of curricula, the more the quality of the learning process will improve, since in the world of today; both the teachers and their students live in the age of massive information, internet, open skies, and social media. The later has become a universal lounge gathering everybody from all around the globe where they can exchange, share, and express their opinions freely without suppression or barriers. In a world like this; it is not wise anymore especially among educators to insist on applying the "One-way" transform of knowledge communication model in teaching and learning as – within such environment – it has become difficult to suppress their voices and opinions, and it will become a some sort of dictatorship that will be having its negative impacts on the development of education theories and methods.

*A Message to Architecture Professors*

Architecture professors should be also aware and admit that the 1ˢᵗ year architecture students of today are far more knowledgeable about architecture than the 1ˢᵗ year architecture students of the past. They came to their first architecture classes already equipped with architectural information they gathered from the internet, social media, and television, unlike students of the past who happened to come to their first year architecture classes with enthusiasm and interest in architecture only, and with a little information gathered about what they will be learning.

# Further Readings

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