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**Architectural Education:
What Really Goes On and What Ought to be Done?
"The Learner: The Other Side of the Coin"**

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Paper Abstract:

This paper highlights the importance of considering the learner in the evaluation process of the undergraduate architectural program. With an eye on the quality assurance project currently conducted in most of our schools, it is argued that major shifts are to take place in the program design and practices. Starting by the philosophy, which is translated into objectives, and then devised as content, and formulated as teaching strategies and learning methods. Moreover, it is also argued that students' evaluation of some core aspects of their educational process is marginalized and lightly considered. Accordingly, the objective of this paper is to introduce debatable key attributes with respect to each of the philosophy and practices of the design studio and the design instructor's role model, considering the learners' view point as pivot.

The methodology of the paper is based on a content analysis of literature pertaining to the two proposed issues. Then, some key aspects are elected for testing. A questionnaire is formulated to which students responded. Aiming at investigating students' perception on how far the facts are from the hypothesized. Findings of which will open avenues for rethinking our programs quality assurance attributes.

Key words:

Design Studio Philosophy – The Melting Pot – The Facilitator – Design Instructor Role Model

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Introduction:

The design studio educational process is a unique, intensive, laboratory-based learning environment with a full range of media for exploration of diverse concepts that strategically merge the art of design with sciences and technology in a decision making endeavor. As for the intended learning outcomes proposed by the literature, most importantly was the recognition of the role of the architect as a player in a larger team, and architecture as a social service, dedicated to those who will benefit from it. The studio, then, should promote for the human cultures, and critical thinking and self learning. Including the different sources and domains of knowledge, the studio practices are expected to interactively integrate knowledge unity and/or connectivity.

Hence, the design studio *IS* truly a "**melting pot**" in which all the knowledge and experiences and skills are blended. Consequently, the design instructor has a crucial and complicated and intertwined role, as all approaches for devising design studios depend primarily on this persona. It is believed that the design instructor's role towards his students is the same role of the designer towards his society; a "**facilitator**". Someone who directs the process rather than runs it, as literature puts it.

I. The Design Studio: The Melting Pot

"The Design Studio: The pillar of architectural education. I find the design studio to be the most confusing of all subjects. Should I start first with how other courses relate to it? Well, they do not relate at all. The Design Studio is probably why I wanted to study architecture. What a disappointment!

I am not blaming the professors ... I blame everyone even me. I blame the system. I blame the instructor ... who attained his degree in 1970 and haven't opened a book since, unless to brag of course? Should I blame the people for not trusting architects? No we deserve it ... we lost our credibility..."

Hassan El Ghayesh, senior student of architecture, MIU, Fall 2008

- **Design Studio Facts and Fallacies:**

The fact is that the radical increase in the accessibility of technology is fostering new forms of social norms, and consequently building practices as well. A more prevalent choice as time becomes an increasingly valued commodity (Akin, 2006). If architecture is to regain its lost credibility, then, the public must be shown that there are reasonable, cost-effective, energy and resource efficient alternatives available from design professionals. Another fact is the increasing density in urban areas, accompanied

by and leading to a continuation of suburban sprawl. Another fact is that hazardous and non-renewable materials effect the immediate environment of everyone. One more fact is the un-awareness of the context within which one designs (Jikolander Z. & M Guzdial, 1997). **It is then argued that our design profession is terminally ill and remains in denial.**

From retrospection, often an emphasis on original and 'creative' designs outweighs designs that work (serves functional requirements, are buildable, etc.) Students imitate the style of fashionable architects without understanding the implications for users or the appropriateness for local context. And less experienced students view architectural design as an opportunity to express their inner creative urges, rather than as a challenge to resolve a complex set of technical and social issues. The lack of formal methods in architectural design puzzles each generation of students entering studio; they learn the 'how to' skills through imitation of their teachers and more senior classmates. Indeed a strong belief in the studio culture asserts that every student must independently develop his/her own process or method of design. It is the rare teacher indeed who shows students how to follow a systematic method (John. S. Gero, 2006). One more design studio fallacy conceived is that in most cases, the educational package is not coherent, and that taught subjects are detached, where the design studio –bearing all the above fallacies, is also regarded as "just another course", and not as the spine of the entire process.

The design studio is the core of any architectural undergraduate program, no matter the different views of the different schools. An agreed upon philosophy of the design studio is misconceived in our Egyptian schools of architecture (Safey Eldeen, 2004). **It is then argued that our local design studios as conventionally practiced is not providing the students with the basic tools with which they can enter and better the profession.**

- **Issues Involved in the Design Studio "Conception": Philosophy and Practices:**

The design studio philosophy can be visualized as an elliptical path around two foci; architectonics (the science of architecture) and the human consciousness. These two principles are combined to establish an ordered intellectual context within which pursuit of the creative and synthetical design process occurs. The successful culmination of this process will result in a building with great variations of space that allow the architectonic aspects of a design to be clearly understood at both the conscious and sub-conscious levels (Akin, 2006).

Such preceding philosophy determines that architecture students are expected to learn domain specific knowledge about buildings through class instruction. In classes in architectural programming, environmental controls, structural analysis, review of historical design precedents novice designers learn to reason about the expected behavior of designs. The studio is supreme: it is where the knowledge about buildings is applied, and it is where the act of designing—generating, evaluating, and developing alternatives—is learned and **practiced**. A recurring challenge of architectural education is thus to integrate domain material taught in lecture format courses into the design studio learning experience (Mark D. Gross & Allen Yi-Luen Do, 199).

Figure #1: design studio knowledge and intellectual skills aimed at addressing and practicing.

Educational goals and the specific requirements of the design brief for the project are seen as inextricably interrelated in a good design program. It is argued that the development of an appropriate project vehicle to stimulate enquiry, impart knowledge, teach skills and develop critical values *IS* the key to successful studio teaching. In any educational process which aims to fit students for professional practice a layered, multivalent problem type with familiar and accessible foothills, challenging mid-slopes and distant if near-unattainable peaks is essential (Mark D. Gross & Allen Yi-Luen Do, 1997).

The organization and the development of an architectural design course is, for its leader, a real project. It has its own process (the teaching method), its own tools (the selected design themes, assignments, and all other educational means), its own concept (the educational aims and strategy), its own objectives (the expected learning outcomes), its own connotative meaning (the driving value system), and its own conception about architecture and about the architect. It is structured upon its own internal architecture (the implemented pedagogy), which represents, reflects and sometimes declares or even glorifies its attachment to a specific framework of thinking, understanding and doing architecture, in other words to a specific architectural paradigm (reference).

As atelier or as laboratory, as lab or as studio, 'integrated' or 'vertical' the course of architectural design should always be the decisive melting pot of architectural education, the efficient catalyst of architectural knowledge, the powerful multiplier of architectural creativity, the effective developer of a framework of thinking, understanding and doing architecture. It is the dynamic "heterotopia" where the articulation and integration of architectural ideas take place, through experimentation, critique, confrontation, exchange, argumentation, debate or even imposition. It always appears as a promising invitation to a serious commitment, determined engagement, deliberated dreaming and passionate search for the new, the other, the innovative, and the experimental (Mark D. Gross & Allen Yi-Luen Do, 1997).

Academic literature and publications on the World Wide Web criticized a variety of design classes as they are taught across instructor comparisons, comparisons across class activities with regard to student behavior and the relationship between manual skill and reflective practice in studio work (Ahmad Abdullah Bakarman, 200?). Analysis and discussions suggested new ways to improve teaching and learning in design programs. However, the students' side of the coin was not revealed. Though, as the speed of changes grows dramatically, the coexistence of many different views and aspects on architecture and more specifically about architectural design education becomes one of the main characteristics of entire educational environment. Alas, Egyptian schools of architecture, in most of the cases, appear rather

resistant to change. Except for some volunteers, the design studio practices are almost the same in all schools as they have always been since the foundation of the first department of architecture in 1908 (Safey Eldeen, 2004). To the extent that some instructors believe that the design studio is the easiest to teach; no preparation and no search, no text books, no hand outs, no assignments, nothing, and the longest span in terms of teaching hours: the greatest escape for both instructors and students!

II. The Facilitator: The Role of Design Studio Instructor

"... I'm not seeking much now but respect, dignity, order and similar issues. Our system in general has taught one to be pushingly offensive and frighteningly defensive. That's one thing we don't care a bit about and don't realize its consequences as well; we keep talking about 'architecture for facilitation' and 'team work' when all we promote is production through fear, competition for the sake of stardom, and other issues that eventually lead to our stressed out lives on different scales.

Let's face it, what team work?? Does the staff manage good efficient team work?? Do the university members have 'focused common goals'?? What kind of role model do we have exactly?? Do ye realize that students are actually asked to follow fantasies at different points in their learning process, and the whole thing is based on an illusion?!

Back to the positive/negative perspective issue, ye tell me, do ye think our general system pushes the students to see a good side? Or even care to look for it as much as they're trying to avoid the bad one? Look around ye; school; professional field; is the bigger part helping in feeling generally good? Does the bigger part help in paying attention to the educational process itself?! The bigger part promotes hatred, anger, anxiety, fear, holding grudges, stunted social communication, loss of self-esteem at times and many other issues that can be too personal as well. That's our community. That's what we facilitate..."

Tarek Abdel Kawi, senior student of architecture, MIU, Fall 2008

• How Do I?

Are there any standards to define the nature and role of the design instructor? And what do the students think of this role? Questions evoked by frustration through one of my design classes. During a fifteen years journey of working in the architectural education realm, I always believed my role between my students resembled my role as designer with my clients: a facilitator. In this particular studio, I was hindered by a students' rebellion against my class management. Reviewing mental images of all my professors and my entire senior design instructors and wondered: what has gone wrong? I have been used to the maximum student evaluation of course and instructor. What went wrong then? I dogged in my literature and still believed in my role. The students' mid term feed back revealed that they wanted a more authoritative instructor; some one who would be harsher, more offensive on dead lines, and more demanding! Bewildered, I decided to search this role from the students' perspective in the first place, and compare it to the literature recommendations to find out the optimum figure of the design instructor and draw up a workable model of its application [1].

The challenge of maintaining students' confidence and enthusiasm in a process with progressively advancing measures of achievement is always envisioned as the primarily role of the instructor. Instructors are responsible for developing creative, interactive, and intellectually stimulating classes so that students would be inspired and "clicked" to the tune. However, such features seem too general and just "expected". And they all are results of the educators and theorists side. The literature put the design

instructor not as a "teacher" who has answers to all the questions; but as the one who helps the students find their own answers. Again, the students' side of the coin is not revealed.

This leads to a higher level of debate. A definition, or let's say a description that is based on both a content analysis and an empirical survey is really needed. The since and therefore rule suggests that *if* we want the students to acquire credibility for their selves and their profession upon their graduation, *then* they have to experience this role alive along their educational journey, and acquire it as part of their experience. The best way for this experiential practice is through their ongoing design studios. And here, the role of design studio instructor as "facilitator" is regarded as optimum. Nevertheless, this role requires a pivotal cultural change in our society – accustomed to the role of the single decision maker, and the followers.

- **The Facilitator Architect and the Facilitator Instructor:**

"Facilitator" is someone who skillfully helps a group of people understand their common objectives and assists them to plan to achieve them without taking a particular position in the discussion. The facilitator assists the group in achieving a [consensus](#) on any disagreements that preexist or emerge in the meeting so that it has a strong basis for future action. Most people associate the word "facilitator" with the training environment. Often, that person at the front of the room leading training sessions, For example, the chairperson at a meeting often takes on the responsibility for facilitating the meeting, rather than "running it". A facilitator is an individual whose job is to help to manage a process of information exchange. While an expert's" role is to offer advice, particularly about the content of a discussion, the facilitator's role is to help with **how** the discussion is proceeding. In short, the facilitator's responsibility is to address the journey, rather than the destination. In this case, the facilitation role is more likely to encourage others to be more cooperative (<http://en.wikipedia.org/wiki/Facilitator>).

Literature defines facilitation in architecture as the tendency to conduct the for-search and then respond to the social values through the understanding of socio-behavioral contexts. The architect is then involved in the process of problem definition (Akin 1983). The prime characteristic of such architect is an interpreter. His role is to manipulate spaces to accommodate related human activities. It aims at creating process that enables people to solve their own problems (Salama, 1995). A facilitator architect empowers his society though his sensitive interplay between cultural norms, society, planning, design and implementation. The facilitator architect is associated by the process of "participation". In which literature describes a process of enabling people to solve their own problems through an assistance of behavioral patterns, and through a demonstration of the connections between architecture and art and human sciences (reference). The outcome is anticipated to lead to a foundation of a humane design methodology.

It is argued that the role of the design instructor resembles the model of the "facilitator architect". Consequently, the facilitator instructor's characteristics suggest that this teacher enjoys some qualities like: distinguishing process from content, releasing blocks to the process, using time and space intentionally, managing students' relationships and prepares thoroughly, skillful in reading the underlying dynamics of the group, assumes (or shares) responsibility for the group journey, skillful in evoking participation and creativity , adaptable to the changing situation, honoring the group and affirming its wisdom, capable of maintaining objectivity, demonstrates professionalism, self-confidence and authenticity, maintains personal integrity.

Literature also accentuated on the personal style of this "facilitator" instructor, highlighting his/her attitude as task oriented, asking rather than telling, paying personal compliments, willing to spend time in building relationships rather than always being, initiating conversation rather than waiting for someone else to, asking for other's opinions rather than always having to offer their own, negotiating rather than dictating decision-making, listening without interrupting, emoting but able to be restrained when the

situation requires it, drawing energy from outside themselves rather than from within, basing decisions upon intuitions rather than having to have facts, has sufficient self-confidence that they can look someone in the eye when talking to them, more persuasive than sequential, more enthusiastic than systematic, more outgoing than serious, more of a counselor than a sergeant, more like a coach than a scientist, is naturally curious about people, things and life in general, can keep the big picture in mind while working on the nitty-gritty (<http://ideafacilitators.wordpress.com/2008/08/07/the-role-of-the-facilitator/>).

<i>Objectives</i>	<i>Content</i>	<i>Methodology</i>	<i>Teaching Practices</i>
Emphasize role of the architect as facilitator and team player in the community	Multidisciplinary: touching everything of human value	Working back and forth between scientific, metaphoric and critical thinking	Teacher is facilitator, mentor and advisor
Foster environmental design; physical and intellectual environments	Built environment: open text book	Abstracting, conceptualizing and generalizing from disconnected knowledge bodies	Hands on experience on dynamics and variables of design and building
Develop self responsibility and self regulation and reflect on one's own learning	Strengthen research base: contextual examination and comparative analysis	Communicating and collaborating; strengthening and integrating cognitive and imaginative skills	Transforming behavioral information into design decisions

Table #1: a hypothesized facilitator's design studio agenda.

III. Students' Side of the Coin: An Exploratory Investigation

It has always been believed that the design studio is ever guided by the views on architecture this teaching reflects, has always been conducted by the values and principles emerging through its implemented pedagogy, has always been implicitly ruled or explicitly regulated or even controlled by its educational objectives, teaching strategies, methods and priorities. How far is that true- particularly here in Egypt?

Seeing the design studio from the students' perspective is believed as keystone in developing the subject matter at hand. For that, an exploratory investigation was undertaken to lay hand on key issues involved in affirming the philosophy and models of practices of the design studio. The study relied on electing an assortment of programs and design studios intended learning outcomes, from which questions were formulated [2]. Design studio objectives and intended learning outcomes were randomly listed and probed, **to investigate students' awareness of the studio philosophy as melting pot** implied in the formulated objectives and outcomes. Questions were derived from a content analysis on literature on architectural education in general, and design studio on particular. As for design learning methods, an election of practices derived from a content analysis of the educational literature were adapted as reflections of different teaching/learning practices inside the studio **to detect students' perception of methods that best aid design learning**. Afterwards, students were asked to compare their design studios experiences with the standards listed **to see-through students' reflections on their own educational process**.

- **Indicative Implications on Design Studio Philosophy and Practices:**

The result of the random investigation accentuated on the hypothesis. Students' responses revealed an unawareness of the design studio philosophy as "melting pot". Answers revealed that most design studios **do not rely** on a research base that is responsive to users, urban and environmental context (15/30=50%). Building specifications, standards and codes and appropriate use of building material and construction **do**

not stand as design imperatives or judgmental criteria (21/30=70%). Technical sciences, environmental and economic issues were denied (23/30=76%). One more paradoxical feature was envisioning the terms **programming** as merely space labels and areas assignments (18/30=60%), **evaluation** as superficial reviewing of alike examples (20/30=66%), and **knowledge-based design** as finding standards from time-savers and alike available text books (21/30= %)! Problem definition, objectives, key words, concept, and design brief appeared as common terms while- ironically- proved to be vague perceptions for most respondents (17/30=56%) [3]!

Most respondents agreed on the lack of studio-time management (22/30=73%), and expressed the need for more courses on freehand drawing and sketching skills. Some students' responses revealed least care for proper education and maximum anticipation of grades, seeking less homework and easier exams (11/30=36%). In their open ended reflections on previous design studio experiences, students expressed that communication among peers, pin ups and transitional juries help develop critical thinking (19/30=63%). Team work was also an emphasis in some students' responses, emphasizing the role playing as key to developing general skills in the studio (9/30=30%). Field trips and reviewing real life local or renowned global projects were also highlighted by a number of respondents as means for both inspiration and critical thinking (14/30=46%).

- **Students' Say on the Design Instructor Role Model:**

It is worth reminding that respondent students have passed through studios run by a selection of instructors from different background architectural "belongings". **In order to lay hands on students' optimum icon of the instructor**, questions for this issue were devised with respect to each of; character and personal attributes, relationship with students, and class management. Questions and probes were derived from a content analysis on the role of the "facilitator". Finally, students were asked to comment on their own studio experiences indicating any encounter with the preset standards.

Students' feedback was shocking with regards to the gap between the ideal standards derived from literature on the optimum role of instructor and their judgment of their judgments of their real instructors! A percentage of 73% of responses (22/30 of students' sample) agreed on seeking the ultimate image of the facilitator instructor in terms of his character and personal attributes. Surprisingly enough, most students were neutral with respect to the questions probing the relationship between the instructor and his students (14 /30=47%). Does this reveal a feature of our culture as one sarcastic student put it? Are we passing the culture of "following the authoritative figure as a single subjective ruler and as an individual decision maker" to our students through our studio practices? The same stunning results came from the students' responses on questions of class management. It seems that students are accustomed to dictatorship, or else, they see democracy as weakness of instructor (12/30=41%)!

In their open ended responses, students agreed that their instructors were good talkers and presenters (24/30=81%), sarcastically mocking (17/30=57%), depressing students in most of the cases with their refusal of students' immature ideas (19/30=63%), favoring students over the others (11/30=37%), pushing students towards their own tracks rather than students' owns. Students asserted that most instructors don't prepare for open discussions (12/30=39%), and prefer the mono-tracked criticism without preset and announced criteria (15/30=51%), which also applies for grading criteria (14/30=47%). Shouting, yelling, and degrading students also appeared in students' responses (7/30=23%).

Reflections:

The investigation was held in a private university that relies on instructors (both full-timers and part-timers) from different architectural backgrounds locally and globally. Hence, they present an election of a number of architectural schools in Egypt. The investigation was held among three academic year students -third, fourth and fifth. Then, only a number of thirty responses were analyzed. This university happens to

be already involved in the quality assurance project, with program and courses already inspected twice. However, students' responses affirm on the lack of a quality assurance with respect to the studio. Does this imply that the **quality assurance process is belittled to paperwork?!** As for the inconsistency of students' responses with respect to the design studio as a melting pot, this is a factual tragedy. It is a stance that we all educators and students have to face it immediately. If we claim that our roles as designers are change agents in society through physical alterations and manifestations, then our roles as educators are also change agents in society through conceptual governance of ideas and beliefs paving the way ahead for such winds of physical changes.

Contradictions among students' responses with respect to what they seek of an icon of instructor and what they are hesitant about of studio resemble an image of an iceberg. The democracy practices exemplified in the facilitation role of instructor and the "largest team" concept is one of our cultural paradigm myths. Regretfully, we might excel as individuals, but we seldom excel in groups (local sports are evidence). This design studio dilemma stems from the larger dilemma of our institutional incompetency, which in turn reflects a larger picture of our entire societal paradigm. It is our duty as educators to try to change this conception. We should manifest the role of the facilitator in our classes if we seek any credibility of our profession outside the school borders and if we dream of any democratic practices in our societal institutions.

Conclusion:

This paper highlighted several points of debate evoked by the quality assurance project recently initiated in some of our schools of architecture, and revolved around the students' say on the process of design studio education they undergo.

With respect to the subject matter of **the design studio as melting pot**, it was about investigating students' perception of the philosophy of their design studios and the practices that are devised to materialize such philosophy. Students' feed back revealed ambiguity of the subject matter, which has proved that most of our design studios are run without a visualization of a preset philosophy that paves a way ahead of planning for design teaching and learning. With respect to **the role of design instructor** was about predicting students' icon of their design instructor as "facilitator". Results of which surprisingly proved that the twenty first century youth have already inherited and abided some of the undesired cultural heritage that is urged to be changed. Also revealed that some authoritative figures (instructors) are still single decision makers who need to rule their classes in a dictatorial manner to guarantee the achievement of their intended learning outcomes.

Despite the fact that we have initiated this research as an exploratory investigation, we now assert that its outcome indications can never be disregarded. From our scope as "instructors", a fresh look on **program philosophy** should be corresponded to with a revision of our **courses intended learning out comes** and **methods of delivery** and should be evaluated in lights of **students' feedback**. From our scope as "coordinators of the quality assurance programs", a belief in the goal of such project should be our focus. Quality assurance should not be trivialized into catch phrases or fashion slogans and loads of **paperwork**. We should remold our vision in a **stated mission**, to which program design and practices should adhere to. From our scope as "educators involved in the system", a rebellion against our current institutional status should be immediately launched.

Figure #2: illustrate the view of "integrative learning" as proposed by the quality assurance criteria.

Finally, we regard this paper as a preliminary exploration; we urge our colleagues to join effort and to continue exploring what really goes on versus what should be done about architectural education. We aim at a collaborative work on track, developing and assuring the quality of our Egyptian undergraduate programs, while maintaining schools uniqueness and distinctiveness.

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End Notes:

[1]: Interior Design Studio, spring semester 2008, Misr International University, taught by H. Safey Eldeen.

[2]: The questionnaire was responded to by a number of 43 of Misr International University architecture students; from third year (passed through a number of four design studios), fourth year (six design studios) and fifth year (eight design studios).

[3]: A cynical and devastating feature, as all students' sample study a design methods and theories course in the fall of their junior year, and most course outcomes are fruitful. This materializes the conception of the studio as a separate course, for both instructors as well as students. The fact is that the studio **IS** detached entity from its "contextual" knowledge bodies that have to be blended in the studio as "melting pot".