

STRATEGY TO IMPROVE THE QUALITY OF ARCHITECTURAL EDUCATION IN BALI

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Abstract

In millennial times, job opportunities in the field of architectural design are faced with increasingly fierce competition. Architecture is a combination of art, science, and technology. While the theory of architectural education is still trying to find the right form and format. What can be obtained from architectural education? What must be learned in architecture?

In the context of the world of architectural education, there are several factors that are very instrumental in producing architectural or architectural scholars who are of higher quality and identity. Among other things, a good learning process method, the availability of adequate teaching staff and the effective management of the Architectural Design Studio. With more emphasis on architectural education curriculum based on the local wisdom of the archipelago.

On the other hand, architectural education that leads as a practitioner should be balanced against architectural theories, enriching values, philosophy, and content. Thus a good design learning model needs to be created so that it contains efforts to foster or enhance creativity and practice finding many ideas. In architectural education, all tasks are done manually (by hand). But now all of these tasks can be done digitally or in a computerized manner. The development of Information Technology allows the things that could only be done manually, for example by sketching, now it can be done with computers. Now architecture education is expected to be able to adapt and accommodate changes in the world to prepare professional graduates.

But the fact that most of the existing literature is still historical-oriented and methods of designing western architecture. If this fact continues on an ongoing basis, it is feared that architecture that grows in Indonesia in general or in Bali in particular, can gradually eliminate its identity as a local architecture. Related to this context, how the strategy to improve the quality of architectural education in Bali needs to be done. What knowledge groups need to be owned and or added to improve the quality of architectural education which also has a local identity.

Keywords : *Architectural Education, Quality, Identity, in Bali.*

INTRODUCTION

Discourse about the problem of architectural education, like endless, often changes or is in line with the times. Indeed, the aspect of developing architectural education is an interesting topic. Prof. Gunawan Atmosoetjipto, M. Arch (1983) suggests: to get a bachelor's degree in architecture a student must take an education that is based on a lot of philosophy: 1) Design; 2) Art; 3) Engineering; 4) behavioral sciences; 5) Other supporting knowledge. The connection between the five philosophies is called the whole design/design word. An architectural scholar must be provided with basic knowledge (structure, history, utility, design) and special knowledge (climate, social, economic, cultural, etc.).

The architectural nature is to provide maximum benefit for the community and its environment. Through the practice of their profession architects have the opportunity and responsibility to use and share their expertise with the wider community. The need for a Law (Law) on Architects has also been very urgent to clarify the legal certainty of the scope of the responsibility of architects who are on par with foreign experts who have long applied the Architect Act in their country.

In architectural education, first, all work is done manually (by hand/rendering). But now all these tasks can be done digitally / computerized. The development of Information Technology (IT) allows things that were previously only able to be done manually, such as by sketching, now it can be done on a computer. But one thing that does not change is the learning of architectural design. The learning process in Architectural Design is generally done in the studio, considering that architectural education is more "educating" than "teaching". More to instill an understanding of meaning, an attitude, development of taste, value system and sensitivity to society and its environment.

At present architectural education is expected to be able to adapt and accommodate changes in the world to prepare professional graduates and be able to become "hosts" in their own country. But the fact that there is a lot of literature that is currently still history-oriented and methods of designing Western architecture. If this fact continues on an ongoing basis, it is feared that the growing architecture in Indonesia in general or in Bali in particular, can gradually eliminate its identity as local architecture.

Regarding the matter, how are the efforts made so that there is guaranteed continuous quality improvement and the achievement of programs and activities of educational institutions through the development of tools and guidelines for quality assurance of academic programs in education, research and community service? It also includes general non-academic programs and activities.

SOME CREATIVE PROCESS STAGES

In guiding and educating student architecture, there are several stages of the creative process that need to be understood. According to Wallas (1978), there are 4 (four) stages in the creative process, including the preparation and effort stages, the incubation stage, the illumination stage, and the verification stage.

1. Stage of preparation and effort is the stage of gathering information or data needed to solve a problem. With material knowledge and experience, individuals explore a variety of possible solutions to problems. There is no definite direction here, but the mind explores various alternatives. At this stage, divergent or creative thinking is very important.
2. The incubation stage is the stage where the individual seems to temporarily break away from the problem at hand, in the sense that he does not consciously and intentionally think about it, but am incubating it in the pre-conscious realm. As is evident from biographical analysis and from reports of figures of artists and scientists, this stage is important in the process of inspiration. They all report that ideas or inspiration that are the starting point of a new invention or creation come from the pre-conscious area or arise in a state of full unconsciousness.

3. The illumination stage is the stage of the emergence of "insight" or "Aha-Erlebnis", when new inspiration or ideas arise, along with psychological processes that initiate and follow the emergence of new inspiration or ideas.
4. The verification phase or evaluation phase is the stage where the idea of knowing the new creation must be tested against reality. Here we need critical and convergent thinking.

In the foregoing, it can be concluded that educators need to provide opportunities for students to intersect between busy time, time to study and work on a problem with time "relaxed" or relaxed, calm atmosphere that allows students to precipitate everything that is obtained and done. This atmosphere allows for inspiration.

ARCHITECTURAL EDUCATION QUALITY IMPROVEMENT STRATEGIES

In this context, efforts need to be made to improve quality or quality by developing a Quality Policy. Some policies that need to be pursued include gradually revising the architectural education method itself, from the process that has only been based on teaching to lecturers (teacher-centered) into learner-centered education processes, where students have a greater role and responsibility in determining what is learned and the freedom to develop themselves, including developing their personalities and skills.

The teaching approach that is oriented to learner-centered education places more emphasis on 1) students are treated as participants and not as listeners; 2) in teaching emphasizes the process of finding problems, not only providing scientific substance; 3) the teacher acts as a facilitator, not as resource persons and evaluators; 4) active learning methods, not knowledge transmission methods; 5) oriented not only to the subject of science but considering the character of the student; 6) teaching is not done in one direction, but is a collaboration between lecturers and students; 7) provide an experience of understanding to students in the process of analyzing problems in addition to the synthesis process.

However, the success of applying the teaching approach mentioned above depends on 1) the high and low motivation of students; 2) the extent to which students are enthusiastic in receiving knowledge; 3) the use of technology in presenting lecture material; 4) renew or "up to date" lecture material.

The above steps are an attempt to determine the extent of efforts that must be made in order to achieve indicators of quality success in the field of architecture in particular. In order to produce qualified graduates, renewal in teaching methods is needed, so that students not only master teaching material but teach them to be critical in their perspective and ability to develop their personal abilities.

One indication of the progress of the architectural study program in each Faculty of Engineering, in particular, is the need to intensify publications generated from research conducted by students. In the future, it is expected that each architectural study program will encourage and facilitate the matter so that the results of student research can be gradually communicated.

Other factors as a reflection of the quality of graduates The study program produced is the absorption of graduates in the community. For this reason, it is necessary to offer academic and student programs that directly provide the widest opportunity for students, so that after they graduate they are able to work, study and develop themselves in accordance with what is expected by the users of the graduates.

ARCHITECTURAL EDUCATION QUALITY STANDARDS

Related to the Architect Law plan, one of the most important things is concerning the quality of architectural education. There are a number of guidelines for making the educational quality standards cited and prepared by the association of architects of the World Union of International

Architects (UIA). By studying the guidelines at least the educators will know the standards of architectural education as well as world rules of the game, things that will later become access to recognition (accreditation) and prerequisites for expertise (competency).

Referring to the guideline, there are several basic knowledge for architecture graduates that should be mastered by scholars. These items are grouped into 3 parts, namely: a) Basic knowledge groups that are sufficiently mastered equally to Awareness, b) Understand group (comprehensively understand) and c) Ability group (be able to do it). The guidelines above need to be used as a reference or guideline for students and new architectural scholars in the acquisition of the architectural knowledge taught.

Basic knowledge groups that need to be owned are: 1) Verbal skills: the ability to speak and write effectively about material in a professional curriculum; 2) Graphic skills: the ability to use appropriate presentation media, including computer technology, to deliver at each stage of design, important elements in building programs and architectural and urban design; 3) Research skills: the ability to carry out basic methods of data collection and analysis to explain all aspects of programming and the design process; 4) Critical Thinking Skills; 5) Basic design skills: the ability to apply the basic principles of organizing space, structure and construction into the conception and development of interior and exterior spaces, building elements and components; 6) Collaborative Skills: The ability to identify and take on roles that maximize individual talent and the ability to work with other students when working in a design team;

While understanding groups (comprehensively understand) that must be mastered are: 1) Human behavior: Sensitivity to design theories and methods that clarify the relationship between behavior and physical environment; 2) Human diversity: Concern for diversity needs, values, ethics, behavioral norms, and social and spatial patterns that distinguish various cultures, the implications of diversity for social roles and architectural responsibilities; 3) History and precedent; 4) National and Local Traditions: Understanding of Eastern rules and traditions in architectural, landscape and urban design, including the vernacular tradition; 5) Eastern Traditions: Sensitivity about rules and Eastern Traditions in the design of landscape and urban architecture, as well as weather, technology, socioeconomic factors and other factors that have shaped and sustained them; 6) Western tradition: Sensitivity to uniformity as well as the diversity of rules and traditions of architectural and urban design in the western world; 7) Environmental conservation: An understanding of the basic ecological principles and responsibilities of architects in relation to the preservation of resources and the environment in architectural and urban design.

The guideline items included in the "be able to do it" group includes Accessibility: The ability to design sites and buildings to accommodate individuals with diverse physical abilities. Then, Site Condition: Ability to respond to natural and environmental characters made on the site in program development and project planning. Also the system of formations (formal ordering systems): understanding of the basics of visual perception and the principles of the system of order in two- and three-dimensional designs, architectural composition, and urban design.

On the other hand, the structural system, which is an understanding of the behavior of structures in resisting gravity and lateral forces and the evolution of the range and proper application of contemporary structural systems, is also included. Likewise, building life safety systems: an understanding of the basic principles of design and selection of rescue systems and sub-systems in buildings.

For the outer cover of the building concerns the building envelope systems: an understanding of the design principles of the building's outer cover system. Including the building environmental systems, concerning the understanding of the basic principles of building structural system design, environmental systems, even aspects of lighting, acoustics and space conditioning and energy use. Not to forget about building service systems: understanding of the basic principles of building service system design, such as piping, vertical transportation, communication, security, and fire protection.

Similarly, the integration of building systems integration: the ability to assess, select and unify structural systems, building cover systems, environmental systems, services and rescue into the design of buildings. Regarding legal responsibilities: understanding of the legal responsibilities of architects in relation to health, safety, and welfare of the community, property rights, rules in zoning and subdivisions, building regulations, accessibility and other factors that affect building design, construction, and architectural practice, all that needs to be a concern too.

As for compliance with building codes compliance, the use of building materials and assemblies needs to be understood about how the principles, conventions, standards, applications, and limitations of the manufacture, use, and installation of building materials.

It is also important to pay attention to the economic issues of building and cost control, sensitivity to the fundamentals of building finance, building economics and controlling construction costs within the framework of the design project.

Development of detailed design: the ability to assess, choose, compile and detail as an integral part of the design and properly arrange the materials and components of the building to meet the requirements of the building program should not be ignored. There is also a need for graphic documentation, as the ability to make accurate technical descriptions and documentation of a design proposal for the purpose of assessment and construction, in addition to comprehensive design, namely the ability to produce an architectural project beginning with a comprehensive program from schematic design to detailed development including space programs, structural and environmental systems, rescue equipment, walls and building elements and to assess the project's final output according to design criteria.

Program preparation, as the ability to develop a comprehensive program is for architectural design projects, including assessing the needs of the assignor, critical review of presentation forms, inventory of space and equipment requirements, definition of site selection criteria, site condition analysis, legal and standard analysis - applicable standards, assessment of the implications of these elements for the project, as well as the definition of the design assessment criteria.

What are the legal context and relationship with others? The legal context of architectural practice is called "the legal context of architecture practice". Having organization and practice management accompanied by documentation and contracts. Then the other guideline points are apprenticeship (professional internship), appreciation of the architect's role, past and future conditions for architecture, and ethics and professional judgment: sensitivity to ethical issues in professional decision making in architectural practice and design.

As for the challenges of managing the architectural design studio in the future, a pattern, method or strategy is needed that is ideally tailored to the needs and strategies of user users, including intense competition; IT development; innovative and creative design, discipline.

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