ARCHITECTURAL EDUCATION DOES NOT PREPARE FOR PRACTICE (?)

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A. INTRODUCTION

There have been long debates on whether the education in the school of architecture prepares architects for practice. It seems that each party involved in construction industry - contractors, owners and consultants - expect new architects to be ready with necessary skills in their fields. This means a lot of skills that should be prepared by the school, including skills in the latest technology, especially in the current situation of the changing world. If new architects are not ready with those skills, often the schools are the only ones to be blamed for how they failed the profession (Gutman, 1992). However, which standard to use to determine the school that does or does not prepare well for practice is yet unclear. It is not clear either which standard to determine whether school anticipates appropriately for practice.
This paper will not try to blame either the profession or the school in this matter. Rather it will attempt to discuss how education can prepare for practice; what the school teaches, and how far it can contribute to practice in the real world. The discussion will begin with a brief description about architectural education, architectural profession and the discrepancy between those two sides. Then it will discuss how the education and the professional practice could meet in the context of the changing world. It will also describe the relevance of lifelong learning in the architectural education process to meet the challenge in the current situation.

B. ARCHITECTURAL EDUCATION: Developing knowledge

The root word of education comes from *educe* which means to bring out, elicit, develop, from a condition of latent, rudimentary, or merely potential existence (Brady, 1996). This definition implies the process of developing knowledge as an important thing in education, rather than just emphasising on acquiring the skills. In architectural education, the design studio is the heart of all schools of architecture, which most clearly distinguishes architectural disciplines from all other fields (Hawkes, 2000). As the core of architectural education, the design studio becomes the place where the process of developing knowledge should happen.

However, architectural knowledge, like other kinds of professional knowledge, is largely derived from action and experience (Duffy, 1992). There is a demand to keep in touch with the professional world. Vitruvius stressed that architects who have aimed at acquiring manual skill without scholarship have never been able to reach a position of authority to correspond with their pains, while those who relied only upon theories and scholarship were obviously hunting the shadows, not the substance (Brady, 1996). Thus, both professional skills and academic knowledge have to be linked. The problem comes from how to link between theory and practice and the role of the schools of architecture in linking these two.
C. ARCHITECTURAL PROFESSION: The needs for capabilities

In every profession, one has to be capable of providing a high standard of services. In the architectural profession, architects’ professionalism lies in their ability to provide design solutions that satisfy the needs of both clients and users. Architects also deliver both the functional and aesthetic benefits of design (Duffy, 1992). For architects, design also means something wider: the skilled and cost-sensitive allocation of physical resources. Behind every line drawn by an architect, there are lots of matters to be considered which requires the architect’s understanding of a wide range of issues.

The challenge of the architectural profession is becoming much more complicated at the present. In order to survive within the competitive professional world, architects should deliver work of measurably high standard. The nature of the project becomes more complicated as well. It is often that one project involves a lot of members of building team who come from different backgrounds of knowledge. Consequently, in raising productivity in architects’ offices, it is necessary to emphasise what effective action each member of the team should take in every project. The cooperation of all team members depends upon a clear definition of the role of each team member. Each team member should be aware of what is required of them and what role is played by the other team members. This situation requires every architect to possess a lot of capabilities in order to play a successful role in practice.

D. PROFESSION VERSUS EDUCATION
1. Profession and education in a changing world

Change is a major element of contemporary life. There are changes such as globalisation, increased competition and information technology. Understanding changes will put somebody a step ahead of competitors, while a lack of understanding will put him on the back row. Well-trained people are immediately useful for specific, limited tasks. An example is in the case of an architect with good hand-drafting skills. When the tasks in the office change from hand-drafting to CAD, the skills that he possesses becomes obsolete and he must learn again from the beginning. Another
example is the speed of technological change in the construction industry, which may mean that the skills learnt in school may be out of date when an architect enters the practice. If architects do not keep up to date with this change, they will fall. Consequently architects need to adapt to the changing demands of a global market place. Architects need to be more adaptable to changing processes, technological change and higher standards of work, but the question is how to create this flexibility.

One of the principal functions of the schools is to educate future practitioners (Hawkes, 2000). The education of an architect must therefore encompass both continuity and change to prepare student to meet the demands of the profession (Brady, 1996)). However, it is often difficult for a school to keep up to date with the changing requirements of practice (Gutman, 1996). This is partly because architectural educators cannot predict what special skills an architect will require in practice (Kroloff, 1996). Therefore, given the dynamic and complex nature of architecture, the education of an architect involves not only what constitutes a course of study, but how an architect is ‘educated’ (Brady, 1996). It becomes clear that the important thing in architectural education is not just delivering the contents, or the skills, but encouraging the process of developing knowledge.

2. Meeting the changing world

The practice of architecture is not a static field that can be easily defined by fixed and precise characteristics. It always responds to changes in the real world, and it requires the ability to resist trends as well as understand of the past, the present and the future (Brady, 1996). There are factors such as technological progress, development of manufacturing techniques, and the emergence of new products (Knapper and Cropley, 1985). All these factors are combining to produce a situation in which some jobs being lost due to architects’ inability to keep up with change.

In order to survive change, there is an obvious need for lifelong learning for architects. Knapper and Cropley (1985) explained the philosophy of lifelong education, which is best viewed as a system of fundamental
principles, which serve as a basis for raising and tackling problems. In this way, learning takes place not only in a formal environment, school, but should be a continuous process throughout the life of an architect. Schools become the beginning of an educational process - not the end (Kroloff, 1996). Lifelong learning makes architectural education a more responsive mix of broad-based and core skill. It allows for the possibility to adapt any changes.

Then how can such learning happen in architectural education? Worthington and Pilling (1999) explained one way to do this by giving problems. Giving problems to students in design studios will build on students’ own experiences and develop independence and lifelong learning capacity. The fundamental role of experience in learning has been stressed in experiential learning theory (Kolb, 1984), in which learning is described as the process whereby knowledge is created through the transformation of experience. Through the process, students gain the opportunity to develop their own understanding in solving the problems and the capability to use their understanding when they are faced with the more complicated situations in the real world of practice.

Knapper and Cropley (1985) also mentioned that the best way to learn to solve problems is to be given problems that need to be solved. If students are to learn how to think, they must be placed in situations where they have to do so. Instead of telling the students the answer of the problems, the problem solving exercises allow them to understand the system as a whole. It provides opportunity to learn ‘how to learn’ instead of ‘how to do’. Through this continuous learning process, hopefully the students will be able to generate the ability to solve various problems they might face in the future.

However, the profession must ensure that schools of architecture also enable students to communicate effectively with client bodies, to understand their needs and to improve communication with them. Moreover, architectural knowledge is distinguished by relating to design and to user requirements. For a fulfilling career, an architect has to forge good relationships with clients and users (Rawson, 1998). Such knowledge
belongs to practice and cannot be substituted by the different kinds of knowledge, which belong properly to universities. Once again, the link between school and profession has to be built and the profession should recognise that practical training of students in the office is an essential investment for continuity of practice. It is clear that the readiness of architecture graduates should not depend on the school alone.

E. CONCLUSION

The problems of adequate preparation of the architects should be seen as a balance between what the profession requires and what the education can provide; otherwise the schools will be the ones to blame. Educational institutions can play a role in providing an education that prepares the students to survive in every kind of circumstances. Lifelong learning needs to be considered as one way to achieve it. It seems that the best way to cope with the changing world is to understand a system of how to appraise and tackle problems. Education can give this idea to students, not ‘learn how to do’ but ‘learn how to learn’. A student will know how to persist because he has learnt how to solve the problems. Then he will become a well-educated person, who can adapt to new circumstances in practice, not only to the static ones. In this way, education has - up to some points - already prepared the students for practice.

BIBLIOGRAPHY


