The Influence of International Boards Validation upon the Architecture Curriculum in the Arab Region

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Abstract

Well recognized accreditation and validation bodies ensure that architecture graduates will be technically competent who are capable of defining multiple career paths within a changing societal context. These accrediting bodies require an accredited program to produce graduates who are able to solve architectural design problems, including the integration of technical systems, environmental systems, and health and safety requirements; and comprehend architects' roles and responsibilities in society.

The criteria at which the accrediting bodies work and their influence on Architecture schools, the students and syllabus in Arab region are discussed. The RIBA and the CAA are the key professional bodies that perform accreditation beyond their original national borders. In this paper the RIBA validation system will be discussed in order to find out to what extent such validation process can affect the teaching and curriculum structure within architectural schools. The paper presents the validation process carried out at the Architectural Engineering and Environmental Design Department, Arab Academy for Science and Technology (AAST). The AAST architectural department is the first architecture school to be accredited by the RIBA accreditation board in the Arab region.

Keywords: Curriculum development; Validation & accreditation of architecture programs; Accrediting bodies; Advance architecture education.

1 Introduction

Architecture is the most public and the most pervasive of all the arts. It is shaped by politics, economics and fashions and responds to the social life of cities and communities. Whether they are designing new buildings, refurbishing existing ones or developing urban spaces, architects are the driving force behind the development of our built environment and have an influence on all of our lives.

Where local systems have evolved, the practices of long-established accreditation systems like RIBA and CAA are still highly influential. Local validation systems practiced in Asia are highly influenced by these validation systems (Kvan & Thilakaratne 2003).

Historically, the primary mission of these boards has been to assist programs in fulfilling the broad requirements of the profession of architecture and to encourage the development of practices suited to the particular circumstances of each individual program. They affirm the collateral organizations' goals to advance architecture education and provide the best possible education within schools of architecture. In light of these clear goals, it accepts responsibility for evaluating and judging the educational achievement of graduates in order to accredit professional degree programs within qualified universities and institutions in their nations and worldwide to advance the practice.

The Architectural and Environmental design department at the AAST is one of the largest providers of Architecture and environmental design in Egypt. This undergraduate course started in September 1997 in response to a growing need for specialists to bridge the gap between Architecture, construction and environmental design in Egypt: specialists having the skills to resolve design and technical issues and ensure optimum building performance and efficiency. The school then introduced a postgraduate degree course (M. Sc in Architecture and Environmental Design) in 2000.

An architecture and environmental design engineer 'will be able to analyse, synthesise and evaluate design factors in order to produce design solutions, which will satisfy performance, production and procurement criteria' (CIAT, 2005).

2 Validation

Architecture, as any profession, is a commitment to lifelong learning. The common objective and concern of higher education quality assurance systems, local professional, or international professional validation systems is to maintain high standards of education. Quality assurance systems adopt different mechanism to accomplish their objectives.

2.1 Difference between higher education and Quality assurance validation systems and Professional Accreditation bodies

Higher education quality assurance systems are holistic and they focus on scholarship and learning system carried out, the income of schools in the learning process and procedures involved in achieving desired standards and outcomes (Kvan & Thilakaratne 2003. They include both internal and external quality assurance systems. Examinations, staff, textbooks, and course evaluation processes are examples for internal quality assurance mechanisms while external examiners and quality assurance bodies exemplifying external systems. It can be said that universities are typically self-accrediting bodies; i.e. schools in different universities accredit their own programs based on their own standards and reputations. Although assuring quality in education is the responsibility of these independent institutions, there can be external bodies further assuring the standards of internal quality systems; e.g the Ministry of Higher Education in Egypt plays that role.

External quality assurance systems in higher education like those practiced in AAST in Egypt such as the ISO 9001, validate internal criteria and procedures of the university on a periodic basis. These internal and external systems also consist of well-organized processes for continuous feedback. They include an assortment of paper and administrative work which assures proper filing and documentation of courses in any different school. They mainly act upon the documentation and learning income of schools more than the outcome of the students. Using quality management theories, validation systems applied to architectural education are limited to processes of quality audit and quality assessment, omitting the essential aspect of encouraging the establishment and embedding of quality systems (Deming 1982).

Professional accreditation through validation review is different in nature. Validation of architectural education classically focuses mostly on learning outcomes and hence is usually based on a process of scrutinizing educational programmes based on students' endeavors and outcomes systems (Kvan & Thilakaratne 2003). Compared to quality assurance processes, validation performs an additional function: validation by professional bodies focuses on the conformance to the requirements of practice and not the scholarship. The RIBA validation criteria are biased towards requirements of professional practice and not scholarship. Thus, the RIBA/ARB system validates schools based on professional competence/performance criteria.

2.2 Professional validation the WHAT and WHY:

Concurrently, the profession demanded that graduates be competent in practice, ready to deal with other professionals and clients, emphasizing a more practice-oriented curriculum. Schools of architecture have found themselves at the centre of a struggle and the status tells the tale; architecture schools sit uncomfortably within universities and seem to fail both hosts and profession (Schön 1984; Brown & Gelernter 1989).

Validation systems can play a significant role reconciling the tensions between education and practice for the focus on the relation of training and research (Jenkins et al., 2003:169) in professional disciplines. The movement of architecture schools to the university was particularly difficult because their subject matter traditionally dealt with practical knowledge, not abstract principles or empirical research (Brown & Gelernter 1989:62)

Not all professional bodies have the resources or ability to mount a validation system. Accreditation services are now increasingly seen as an international service. For example, the RIBA and the CAA are the key professional bodies that perform accreditation beyond their original national borders. Where local systems have evolved, the practices of long-established accreditation systems are still highly influential. Professional accreditation agencies have a powerful part to play in ensuring that architecture and research is appropriately recognised, fostered and not penalised.

Since professional validation systems are outcome-based, they do not usually focus on the different procedures adopted by the architectural schools, but gives more concern to the outcome and standard level of the students as discussed earlier in this paper. This runs counter to accepted means of achieving quality in other domains.

Most Schools of architecture in UK, Europe and the United states are likely to undergo some form of validation, prescription and audit from bodies such as those representing the profession, their institution and those responsible for funding courses. That is mainly to insure that the standard of their graduate students is highly competent both on their national and international scale. Whilst the processes of validation, prescription and audit can appear to involve large amounts of documentation and preparation, it can also be a useful opportunity for the reflective evaluation of courses and the source of useful and continuous feedback.

Professional bodies are not satisfied with self-accreditation by universities, desiring a common threshold standard to be applied to ensure all students graduating into a profession are of the same standard at minimum regardless of which institution they learned their skills. Thus, a common feature of professions is that they establish or adopt external quality assurance systems and require professional schools to have a separate professional validation on a regular basis.

3   RIBA Mission

The role of the RIBA (Royal Institute of British Architects) in architectural education is enshrined in the Institute's Charter granted in 1837, namely ' …the advancement of architecture and the promotion of the acquirement and knowledge of the arts and science connected therewith' (RIBA 2001) The Visiting Board system is, by its nature, a monitoring process to ensure compliance with minimum standards, to better the norm and to encourage the excellent. The Royal Institute has a wider responsibility to encourage diversity,

foster research and to strengthen the academic integrity of the arts and sciences of architecture as the bedrock for a mature, contemporary and socially responsible practicing profession. The RIBA is selected by many because the standards promoted by the Institute are acknowledged to be amongst the highest in the world and the procedures for validation are well recognized internationally.

● Royal Institute of British Architects (RIBA)

The RIBA recognises architectural courses and examinations for two reasons. First, to ensure that graduates of RIBA recognised courses are eligible for full chartered membership of the RIBA, which on it turn provides lots of privileges for their chartered members that are clearly pointed to on their website. Second, to facilitate an ongoing dialogue between practicing the profession and its knowledge base. RIBA Visiting Boards visit schools of architecture in interval of four years (until 2003 it was every 5 years), upon invitation from the institution's Vice Chancellor.

4   AAST Validation RIBA Part 1 & 2

The architectural engineering and environmental design department at the AAST (Alexandria Branch) first invited the RIBA to visit the department for validation of RIBA part 1 at the end of the year 2002. The Board then arrived for validation at the AAST at the beginning of the year 2004. The Department of Architectural Engineering and Environmental Design was then accredited the RIBA part 1 at the end of 2004. The department then invited the RIBA for another visit for validation of RIBA part 2 in April 2005. All the required documentation for the courses taught by the department at this stage was sent to the RIBA for an overlook similar to what happened at the process for the Part 1 validation. They were then sent all the status reports and course file summaries (course outline) of all the courses by June 2005 followed by an update in September 2005 along with a Critical self appraisal (CSA) of the department. The CSA is one of the main requirements set by the RIBA before they visit schools or during their visit. The RIBA were then invited by the department for a validation visit which was dated for the 10th and 11th of May after approval of both parties.

In this paper the process undergone for validation by the RIBA for part 2 will be discussed. The RIBA Part 2 Validation board for the Architectural and Environmental design department at the AAST arrived in Egypt by the date decided upon and undergone their inspection in the department on the 10th and 11th of May 2006.

The team involved five RIBA members along with an Egyptian Representative for translation reasons. A room was set within the school with all the details of the taught courses and full portfolios of students who have finished all the courses for inspection by the RIBA members. This room was the base

room for the RIBA members where they hold all their meetings and interviews with staff and students at the school.

The RIBA visits to the department gave the department the privilege of filing and documenting all the courses taught by the school along with their outcome throughout its different stages. This gave a clear vision of the pros and no's of the courses running at that time. It made it much easier to highlight the points of weakness and strength in order to be able to work on it efficiently and be able to upgrade the courses to the level aimed.

There were a total of 18 courses inspected by the board. The courses they were to inspect were all the 9th and 10th term (year 5) of the undergraduate courses and 11th to 14th (year 6 and 7) term of postgraduate courses (those which were opened and taught). These years are compared to those practiced by the Architecture schools validated by the RIBA in the UK in Figure 1. All the students outcome that were inspected by the board ranged from hardcopies and soft copies of their work presented, ranging from preliminary stages to the very final outcomes. The hardcopies present for inspection in the base room of the board were all highlighted and marks were clearly graded and written. The grading were all piled in groups of A's, B's, C's, D's and F's along with their assessment criteria.
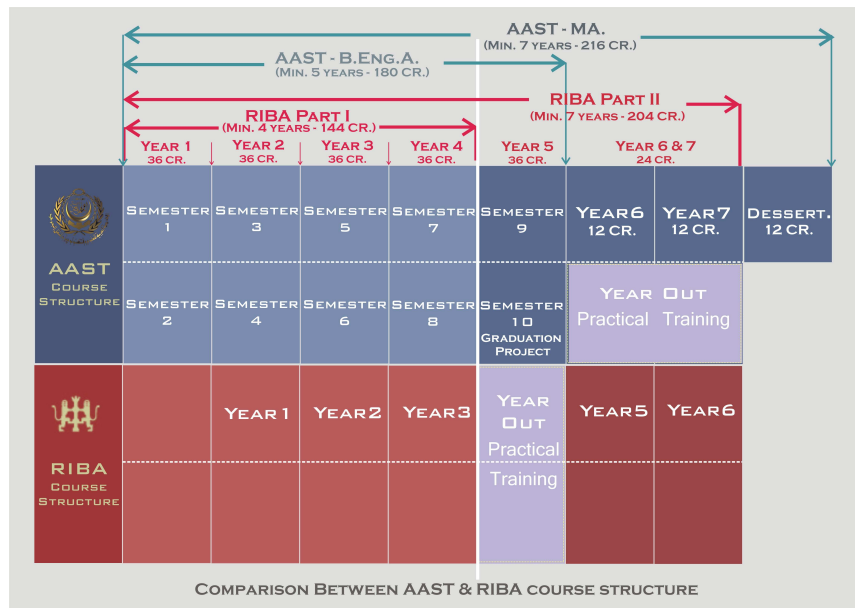

Figure 1: Comparison between AAST & RIBA course structure

As mentioned earlier the ISO 9001 validation system is practiced by the academy and requires lots of systematic filing processes of all the courses outlines and session plans throughout the 16 weeks of each term. All the ISO 9001 boxes from the 1st to the 14th term were all available for inspection by the board in their base room. These documentations made it much easier for the RIBA team to understand the learning and teaching process available at the department and gave them a clear vision of how things run. . The material was presented in such a way as to make it possible to follow an individual student's work in different subjects and modules, and contain work from previous years. This clear presentation technique was clearly required and highlighted through the RIBA correspondence.

A database was designed in PowerPoint presentation with all the students' outcome for RIBA part 2 for both the undergraduate and postgraduate courses. The database was hyperlinked with the students research work or design projects, along with any sketches or draft work. The database also included hyperlinks to softcopies of student portfolios as seen in Figure 2. The board found the database to be very efficient, time saving idea which was very easy to navigate.
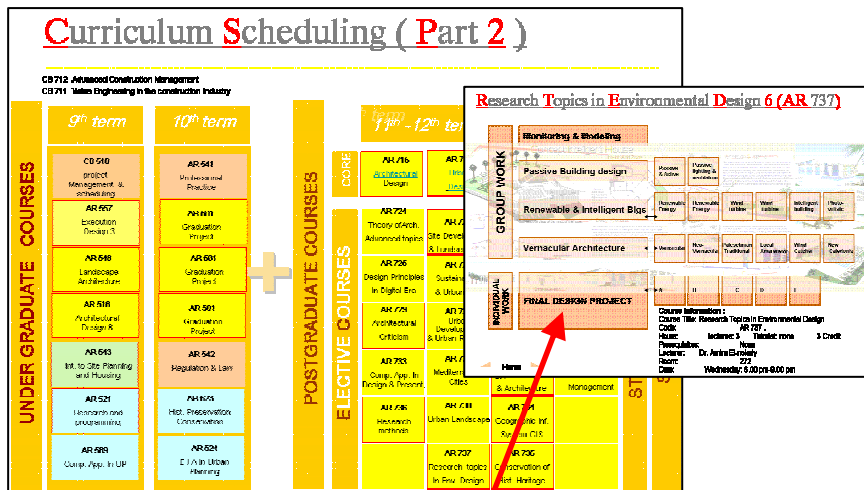

Figure 2: Comparison between AAST & RIBA course structure

The documentation of the student's outcome from the 9th to the 14th term set up in the base room was available for each subject and contained the following documents.

- Student Mark sheets

- Students assignments and their solution by the student

- Students final projects

- Course file summary and session plan for each course

- The students' individual and group research works including their final grades

- Students Design projects

The RIBA had asked for at least 8 student portfolios for those who are in the courses of the proposed RIBA part 2 for inspection that were 3 high passes, 2 medium, and 3 low pass. It is the combination of these three elements (grading), the principle of peer group review, the assessment of student work against the outline syllabus and assessment of student work which makes for effective validation. The department arranged for more than 25 portfolios for students of the RIBA part 2, seven of which have finished all the courses of the 9th to the 14th term and the rest were all along the process ranging form the 9th to the 14th term. The student portfolios were prepared such that to document all the different subjects taken by the student at any stage of his life (not only design projects) along with any professional work undertaken and any special hobby of the student. The student's sketches and rough drawings were also collected and added to their portfolios.

Also all the administrative documentation of the department was set on a different table including:

- Course file summaries of both RIBA part 1 and 2 courses.

- A file of the actions taken by the department towards the recommendations by the RIBA part 1 validation board.

- The internal and external Lecturers CV's.

- Sample of the Staff publications and research work

- The student's statistics (undergraduate and postgraduate).

- The students grading since 1997 (undergraduate) and sine October 2000 (postgraduates).

- the transcripts of all the students who have finished all the part 2 courses ever since they started the departments courses in order for the board to easily inspect those and have a full view of the students gradual progress.

- Questionnaires undertaken by students.

All these and others make a clear vision for the RIBA members in order for them to be able to have a full vision of how things work at the department. A 3D map of the layout of the base room of the board was drawn in order to handout for the members of the board upon their arrival. The filing and documentation of all this enormous amount of paper work and the way the final presentation of work was set for inspection took great work and effort both from staff and students in order to have a presentable final product that is worthy of inspection and validation by the RIBA members.

After review and inspection and in their final meeting with the key workers of the school the RIBA team decided to validate the Architectural department course and award them the RIBA part 2 validation under no conditions with very little recommendations. This decision by the RIBA is considered to be a great achievement by the school, since it's one of the hardest professional validation systems that are undertaken by the Architecture schools on the International scale. The final report of the RIBA to the Department is not sent as of yet as it takes around 8 weeks from the inspection visit date to send the final report.

5   General Comments

•   The board was pleased with all the documentation and filing sent to them prior their arrival to Egypt.

•   They found the base room to be easily organized for inspection.

•   The database of students work prepared was an efficient, time saving idea which made things clearer and faster for the team members during their two days work.

•   The board was impressed by the quality of students they met in their student meeting.

•   All the documentation and filing done helped the department in assessing its courses and understanding where it stands on the international level. The comments made by the RIBA members were worthy of research.

5.1 ADVANTAGES

- A set of standard documents were made available by the department that can be used for all validation exercises by any validating bodies at any time.

- Upgrading Learning outcomes and assessment criteria of the design units and having feedback forms for students in most of the design studio courses.

- Critical Self Appraisal highlighted the strengths and weaknesses of the school, together with documentation of any recent changes in the course and the rational for this. The critical self appraisal was a strong opportunity for the school to reflect upon its course and identify the character of and values held by the school, beyond the criteria for validation and prescription.

6   Conclusion Remarks

Architecture, as any profession, is a commitment to lifelong learning. What we need to inculcate is an understanding that this learning comes through appropriate attitude and is integral to the successful practice of architecture, not

ancillary. Using quality management theories, validation systems applied to architectural education are limited to processes of quality audit and quality assessment, omitting the essential aspect of encouraging the establishment and embedding of quality systems (Deming 1982).

Professional bodies are not satisfied with self-accreditation by universities, desiring a common threshold standard to be applied to ensure all students graduating into a profession are of the same standard at minimum regardless of which institution they learned their skills. Thus, a common feature of professions is that they establish or adopt external quality assurance systems and require professional schools to have a separate professional validation on a regular basis. Validation processes are seen as a powerful tool to change the attitude of schools to the role of practice.

Validation programs as the RIBA are dedicated to the education of future architects who are intellectually aware, and who critically understand social, political and global conditions that have an impact on the profession of Architects.

The Architectural department at the AAST in Alexandria has had to undergo changes in the curriculum in order to satisfy the RIBA part 1 and 2 conditions. These changes are mainly the change of the credit hours of the design courses from 3 credits each course to 4. This has made a tutor-student contact hours of a minimum of 8 hours per week. In their second visit the RIBA team was pleased to see an action plan taken towards their comments after the validation of part 1. One of the main actions taken towards their comments were the review of all the design courses taught from year 1 to year 7 in both the undergraduate and postgraduate courses.

It is worth noting that besides the advantage of the Architectural degree awarded by the department of Architectural and Environmental Design at the AAST been validated by the RIBA. The exercise of filing and reviewing all the courses given at the school was of vital importance and have definitely made it much clearer what the intake by the students should be and more importantly how the outtake of those students should be. Thus, those students will be able to tackle the professional life with strong and higher experience.

By comparison to other income validation systems, the RIBA is considered outcome-based assessments. Hence the system itself is flexible and goal oriented, consequently can lead to innovations and variety. Outcome-based assessments are clear with what the expected outcome should be, leaving the responsibility and freedom to the particular system or programme to devise the processes and strategies to achieve their expected goals. With this criterion in mind the Architectural department at the AAST has tried to put regulation and well-defined values in order to gain a certain outcome.

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