Searching New Pedagogy:
Teaching History of Architecture in Architecture Institutes

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ABSTRACT

Students in architecture academic institutes are engaged in excessive workload with all core courses demanding the same dedication. The course demands maximum time and dedication for the practical aspects and studio. In this scenario theory based subjects like History of Architecture do not generate necessary interest in the minds of the students. One of the reasons is the great flow of information in the form of factual data, which are supposed to be remembered by the students. In the process of teaching and learning at (higher level) there are many factors like time constraint, pre-determined views towards subjects, lack of basic knowledge and understanding, lack of active participation and interaction amongst students and teachers etc. do not let this process occur. This paper focuses on transforming students from passive receptors to active participants. Consequently, their learning can help them connect history with other subjects and knowledge of the same can be applied in contemporary approaches to design. Based on a survey conducted through questionnaires amongst students, faculties of all subjects and professionals, new methods will be applied in teaching.

Key words: History of architecture; teaching methodology; interactive learning; new technology; creativity.

1. Introduction

In architecture education, theory based subjects like History of Architecture do not generate necessary interest in the minds of the students. One of the reasons for this is that there is a great flow of information in the form of factual data, which are supposed to be remembered by the students. The process of remembering data needs a clear understanding about the events that occurred in the past. It becomes necessary to analyse and understand the response or reaction to such historical events that caused revolutionary changes in socio, political and cultural situations resulting into development of new products and architecture. In the process of teaching and learning there are many factors like time constraint, pre-determined views towards subjects, lack of basic knowledge and understanding, lack of active participation and interaction amongst students and teachers and many more, which do not let this process occur.

This paper focuses on transforming students from passive receptors to active participants. Consequently, this learning can help them connect history as a subject with other subjects and knowledge of the same can be applied in contemporary approaches to design. Based on a survey conducted through questionnaires and group discussion with students, new methods were derived and made applicable in teaching. A short course was conducted through different teaching methodologies with group of students which include use of internet, making reports, incorporating videos as a tool, collections of visuals, self-study activities and tasks, individual or group presentations etc. to encourage new skills and competencies including the need to observe, imagine, to understand and think creatively. At the end of the course, the results of the students will be analysed to check the impact of different methodologies, where the pedagogies will be further scrutinized by student's feedback.

2. Aim of the Research

The aim is to have student centric approach in teaching and develop their interest in the subject. As today's generation is well equipped with digital mediums, there is a conscious attempt to incorporate maximum digital mediums as part of tools of teaching and learning. Use of internet is encouraged but as there is abundance of data on internet, which leads to confusion and may mislead the students at this stage; thus students need continuous guidance and training in order to scrutinise the data and find authentic information. Therefore, the interaction between students and teacher at every stage of exercise was encouraged which helped students to work on right track and which can generate a sense of questioning and reasoning and initiate some constructive thoughts in their minds.

3. Conventional Teaching Methodologies and its Impact and Limitations

Usually lectures of one to two hours are taken, where faculties take support of visuals or power point presentations in order to explain a topic in a broader sense. The basic socio-political information about particular time period is provided which establishes a background to understand the ideology/concept and purpose behind the important historic structures along with their spatial planning, design principles through architectural drawings, material and construction techniques used and development of construction technology on which critical analysis or interpretations are done through class discussions.

Furthermore, every next topic related class generally begins with a short revision of earlier topic. There are maximum attempts to keep the classes interesting and interactive by promoting debates, raising questions, organizing quiz etc. to keep students engaged. This also develops their analytical and critical thinking abilities. The students are given assignments that require self-study and students' own interpretations are expected. The collected information, observations and analysis

of the building are presented in form of sheets explaining about their understanding and interpretations through drawings and visuals before the faculties and other students. Certain assignments also include model making to understand the form and spatial quality with 3 dimensions. The other evaluation method is written theory exams where they are supposed to remember the factual data, which is difficult as well as tedious for them as individuals.

4. Approaching Students and Finding their Problems

The aim of research is to develop student centric approach in teaching methodologies. Hence it was necessary to know students' problems before deciding the methodology. The idea of searching of new pedagogies was discussed with the students and they were asked to volunteer for the experiments. A group of students from second year B.Arch. came forward. They were given a survey questionnaire about the subject and its importance, and a discussion was held with students where they stated the problems they faced in learning history as well as the troubles with teaching techniques.

4.1 Importance of History as a Subject and Reason of Disinterest shown towards Subject and Difficulties

Majority of the students responded positively regarding teaching history as a subject in design schools. The subject weighed around 80% in parallel to other design or architectural subjects. The factors that make the subject less interesting are theory, factual data, connection between theory and practice and remembering data. Fifty percent of students said theory is most difficult part, 30% students do not find history relevant and are not able to connect theory and practice and very few of them opined that it is difficult for them to remember the data. Whereas 67% students mentioned that the attention is lost in theory classes after 45 minutes and for the rest attention is lost after 30 minutes. Thus students find that the classes are too long and it is very difficult for them to focus for long time. For many students taking class notes is also difficult as they feel it breaks their concentration in class. Though they find lectures and presentation monotonous and boring, students also accept that it is necessary as without these base guidelines, it would become difficult for them to do further assignment and exercises.

4.2 Drawings, Sheets and Models

All the students agreed that making sheets with drawings definitely help them understand the topic better but many a time, the submissions are done half-heartedly, only for name sake and sometimes for marks. Apart from that, as they lack basic understanding about the topic, they do not complete the assignment well and also do not learn properly as this includes self-study. Eighty percent students believe that model making certainly helps better than just drawings but as it is time

consuming it is not done in true sense while 20% students also said drawings are sufficient, model making is not needed.

4.3 Audio Visuals and Site Visits

All the students (100%) agreed that audio visuals often make classes more interesting and give better understanding of the architecture and also agreed that the site visits at historic places and monuments helps to understand the real spaces in real time and in actual surrounding context. The spectrum of understanding gets widened when the students perceive the actual scale and proportion of the building and see it in reference to light and shadow, texture, colour and many other aspects.

4.4 Suggestions from Students

The long classes can be divided in two parts, after the first part there should be a small break in which activities or interactive sessions, debates etc. can be conducted. Interesting quiz after every class can also be introduced which gives them a reason to be focused during class time. Debates or quiz can include analysing the historical structures through building construction technology and material usage or other technical aspects. The questions regarding sketching of architectural drawings can also be included in the quiz. Students also suggested that after the brief presentation, detail assignments can be given as self-study and do analysis and finally present in the class.

5. Finding New Pedagogies

Based on the survey conducted with students and their suggestions three different pedagogies were decided considering the participatory methods for students. The students were taught with these methods and at the end after their submission, the students were given a feedback form where they could write the advantages and disadvantage of each pedagogies and also add their suggestions if any.

5.1 Pedagogy 1: Power Point Presentations and Class Test

In this method, a basic introduction of the subject was given with help of power point presentation with visuals and descriptions. Here the major challenge for the teacher was to reduce the time taken for a lecture without compromising on the learning. At every stage of the lecture, questions were raised by the teacher to ensure attentiveness of the students in the class, to trigger logical understanding in their minds and to fill the knowledge gap, if left to connect to the next topic. At the end of the class, a quick test of 15 -20 minutes was taken. The questions were such which could be answered by simple logics and did not demand a need to mug up the facts. It also incorporated few questions where students could have their own interpretations or creative inputs. Some questions were also asked where brief/

rough sketches were required to be drawn. For the method the topic selected to be taught was 'Indus valley Civilization'.

5.2 Pedagogy 2: Building Dialogue through Digital Network

The second pedagogy involved the use of digital media. The basic information or brief about the topic was provided through lecture, then the students were given task to find the audio-visuals which shows documentation of the architecture and an insight into lifestyle of people which can give clarity about the usage of the architecture. Videos help students to understand the scale and proportion better. The movement of the characters allowed them to not only see the relation of the building with human scale but also realize the behaviour and ambience of the spaces. Moreover, the videos were able to generate inquisitiveness about the architecture of the buildings and establish a relation of drawings with built spaces and even witness the usage of architectural elements. They were also asked to find out small videos clips or walkthroughs which they could present in class.

For this method the subject selected was Egyptian civilization as it is well documented and the audio visual material is widely available which is witnessed in the construction techniques, assimilation of knowledge from varied fields and religion and belief systems clearly reflected in the architecture of Egyptian civilization.

5.3 Pedagogy 3: Philosophising Architecture

In this method, students were given a brief about the subject, which incorporated geographical location, climate, socio-political conditions, requirements of socio-political situations and religions as well as patron's ideas and philosophies. In relation to this, a design problem was floated, where the students can come up with different ideas, the solutions may not match with the actual monument or technique but it was able to develop the ability of questioning, analysing and reasoning ability of an individual student. This was a group assignment where students were encouraged to make models by exploring construction and structural aspects. Design outcomes of each group were discussed in the class. The topic chosen was Buddhist architecture in its initial phase in India.

6. Student's Feedback

After experimenting with all the three teaching pedagogies, students were handed over with a feedback form where they were asked to write the advantages and disadvantage of each method and also add their suggestions if they have any. Below is the summary of feedbacks about all pedagogies.

6.1. Pedagogy 1: Power Point Presentations and Class Test

Advantages: Due to the small class tests at the end of the class, students tend to give more attention in the class and this also helps them to revise the subject immediately which may allow the information to stay in their memory for longer time. This helps them in making notes easily throughout the lecture and be attentive and score more marks as followed by short test at the end of the lecture.

Disadvantages: There are possibilities of short term attention as there is an exam at the end and many students may not attend the class because of exams. Mugging up is done rather than understanding and exploring their own ability of thinking on logical reasoning. It becomes boring and monotonous and after some time it might be taken casually (for granted) as this will be happening in every class. A few students also suggested that the exam can be replaced by debates, as for debating an individual requires in-depth knowledge and thorough understanding of the topic.

6.2 Pedagogy 2: Building Dialogue through Digital Network

Advantages: In case of watching videos and making notes and presentation, students felt that as notes/presentations are to be made by themselves they are more attentive and they try to understand more and try to memorize while preparing notes. This also improves their analytical skills, and triggers their brain to interpret the database information and breaks the monotony of classes. This pedagogy helps students to go deep into existing historical architecture and analyse it further. It allows their individual creativity to foster and build confidence about designing up to a certain level. Students found this method interesting than the first one. A few of 15% students said sheets and models should be added to exercise.

Disadvantages: It was difficult to find relevant videos for the allotted topic and produce correct or relevant notes. Often many videos on same topics have different information, hence becomes difficult to decide on the authenticity of the same. Not everyone has a good analytical skill it may take a long time to develop it and furthermore not knowing the language (English) properly might not let a person understand audio visuals and he/she would lose interest from the exercise. Students also find that there are documentaries available but very few videos on design related critiques and analysis are available.

6.3 Pedagogy 3: Philosophising Architecture

Advantages: This method makes the subject more interesting and also helps in the main subject such as approaching the design problems in studios. A short lecture or brief /presentation gives the notes till some extent and student need to find some of it on their own which demands a brain storming that is mind boggling and exiting. Each Students need to do brainstorming by their own perception and this offer an

opportunity to be creative. Eventually, this can improve their drawing skills and conceiving the understanding of the topic. This brings clarity of the concept what they have learnt about process of designing and get inference from the historic buildings for their new designs.

Disadvantages*:* As the student needs to constantly plan and design, it might become burdensome to some students and may appear similar to a small studio project. This methodology is time consuming but to get fruitful outcome and to understand the relevance of the subject in Architecture education, it requires more time allotment.

7. Conclusion

Based on student's feedback it is seen that Pedagogy 2 and 3 are more effective and most of the students find method 3 as most effective. Though these methodologies have proved to be effective in the selected smaller group, they need to be applied in varied group types and lot of experimentation are yet to be conducted as larger groups reduce the opportunity of interactive classes. So these larger groups can be broken into small groups where group task should be given and there should be constant involvement of faculties with the students though there is a major role of self-study. Incorporation of videos and documentaries also plays crucial role to develop understanding and interest in subject.

The experiments also helped the students in developing the research aptitude and critical thinking and they also learnt to apply the knowledge of history in studio design exercises in terms of inferences from historic structures and their philosophical manifestation. Instead of mugging up, the methodologies enabled the students to understand and connect with the subject, they understood the essence of the design process which helped them to connect with contemporary materials, elements and design idea to convert them into reality.

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