Nurturing the Creativity of Architecture Students Using a Research-Oriented Approach (IBL)

Abstract

The study of educational approaches shows that today, among educational approaches, the learner-centered approach is one of the most imperative approaches in the curriculum. This approach has types of which the most common in the current education system are the active or activity-oriented approach. The activity-oriented approach is now a collective theme in the work of experts in the Office of Planning and Textbook Writing. In contrast to the above-mentioned approach, there is a research-oriented approach in which activities arise from the heart of the student's questions and interests, and naturally they cannot be closed like the activity-oriented approach in a bounded and formulated manner. Furthermore, these activities are not necessarily similar for various students. In this approach, the student seeks patterns and relationships related to his observations of the world around him, in other words, he determines the starting point, the stages of work and the end point of the activities. The issue here is the relationship between the characteristics of sciences, such as architecture, and the choice of a particular educational approach. This research has investigated this concern using descriptive and analytical methods and relying on library data. Research findings show that the application of a research-oriented approach, when raised from the student's questions and formed based on his/her experiences, grants the opportunity for the student to share and apply his/her experiences and observations simultaneously. Since in educational policy-making, education takes precedence over education, achieving the objectives of the courses, understanding and expressing architecture requires adopting an approach and methods that are effective and appropriate to this policy-making. Among the various learning approaches, the research-oriented approach, which has a stronger educational tendency, is more effective and appropriate for use in teaching the understanding and expression of architecture.

Research aims:
1. The study and analysis of the research-based approach and its features
2. To explain the role of research-based approach in nurturing the creativity of architecture students
Research questions:
1. What are the characteristics of research-based education?
2. How is a research-based approach effective in promoting the creativity of architecture students?

Keywords: architecture education، architectural creativity، research-oriented education، architecture students، learner-centered

Introduction

In today's world, success depends on having the latest knowledge and ability in an innovative and effective way, and this has become one of the competitive advantages between societies. Achieving it requires creativity, innovation, novelty, meritocracy, insight, nurturing and flourishing of people who strive and compete in such an environment. Achieving this result is possible only by institutionalizing a developed culture and system in the field of education. A system in which basic and applied education with a research-oriented and innovative direction is offered to scholars in the wider society. The methods of teaching and learning that increase the motivation of learners and cause the emergence of creativity in them are more effective. The theory of constructivist learning has been favored by educational psychologists in the past few decades. One of these approaches is "research-oriented" or search-oriented, which paves the way for active participation of learners in the educational process. The research-based approach is a learner-centered approach based on participation in the education process.

The necessity of conducting this research is that whenever this important issue - the focus of research in the text of education - is presented at the national level and covers a large number of audiences in the education system, the scientific community and then the general community will benefit from it. The advantage of research-based education in the scientific dimension and the factor of success in other infrastructural dimensions of the country, including the economy, is politics. This method of learning has also been considered in architecture education for some time. Addressing research-based learning in design education is important from two perspectives: first, the significant volume of practical and workshop courses in the field of architecture that requires research work, and second, the formless and flexible nature of professional activities in this field. Therefore, it is important to pay enough attention to this issue in architecture education since it seems that the learning approach based on exploration and search of the learner, in addition to being familiar with the activities of the design workshop, is a great help to future architects in the professional environment.

A review of the research background shows that it has not dealt with this issue independently. About the application of the architecture education approach, an article entitled "Nurturing architecture learners, using the collaborative learning approach" has been done by Dinarvand et al. The authors conclude in this study that participatory education can achieve many of the goals of educational planners in basic architectural design courses. Collaborative learning is one of the learner-centered methods and based on new theories of constructivism (Dinarvand et al., 2017: 5). This article only examines beginners as a study community and participatory approach. However, the present study uses quantitative and qualitative methods and relies on documentary and library data to investigate the effect of research-oriented approach on the creativity of architecture students. To analyze the information in this study, according to the research tools, T-test is used for two independent groups and then the final analysis will be performed using SPSS software.

Conclusion

In line with the research-based approach, it can be emphasized that breeding work requires constant presence and a lot of time on the part of educators. Establishing a constructive interaction with the student and the teacher's direct participation will pave the way for the growth of creativity and the development of abilities, as well as increasing self-confidence and motivation in the students of the workshop and enhancing their understanding and expressing of the environment. With this description, the task of planners and architecture teachers is for the teacher to attend the comprehension and

expression workshops in a way that ensures the development of the student's abilities and, in a word, the training of the architect. In other words, the teacher of comprehension and expression should be more concerned with nurture than mere education. Planners should also pay attention to planning the time and place of teaching the lessons of understanding and expressing the environment in such a way that the importance and sensitivity of an activity in the field of upbringing is preserved and its dignity is recognized. He remembered that memorizing content alone does not bring any benefit to individuals, but creativity in using this content plays an effective role in personal development. Creativity is not limited to specific people and it can be created and strengthened in itself. To do this, in addition to recognizing the mind and abilities and strengthening the mind, one must also design an environment that itself encourages creativity.

In a research-based education system, most of these elements are changed in content or method, meaning that educators and teachers, as far as possible, acquire research identity or are themselves researchers or are familiar with research skills and equipment. From the role of transmitting information to learners, they become the basis for the production and understanding of knowledge by themselves, and creates creativity in both the teacher and the student, the teacher as a liaison. It engages learners and makes them think. He does not justify memorization and tries to teach learners: how to discover the truth themselves, and creativity flows in the truth. Something that has existed in our past educational tradition. In addition to current professors, research consulting professors also provide the necessary services. What is certain is that, in the short term, it is not entirely possible to carry out research-based education. Therefore, we must move towards the realization of this goal in a balanced and reasonable slope and in stages. Initially appropriate, the first operational approach, and as the conditions provided, gradually moved towards more hybrid approaches. Just as education must be research-based, so too is research owed to educational processes. Education is the process by which insights, norms, attitudes, and skills are conveyed and researchers are formed. Education can correct the findings of research; Because by designing it, the findings in an objective environment, the defects and flaws are revealed. Therefore, educational and research processes must proceed in a stable and balanced way to eventually lead to the formation of a creative process. The development of research in the educational system depends on the constructive interaction of all educational and research sectors of the country, and none of them alone can help to improve the research situation in the country. Therefore, progress in this area requires national determination in this regard. Research-based learning is an educational approach that can be implemented in the field of implementation with various methods and tricks. Therefore, instructors of introductory architecture courses will have a creative field to try and introduce the methods of implementing this approach by exploiting research and reflecting on their field experiences in design workshops.

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