International Journal of Technology Engineering Arts Mathematics Science
Special Issue 1, August 2023, pp. 101-105
ISSN: 2583-1224,

Architecture Education in India

Prof. Amol Madhav Bapat,

Architecture, Aditya College of Architecture, Maharashtra, India
Corresponding author: bapatamol06@gmail.com

Article Information

Article history:

Received Jun 10, 2023
Accepted Dec 10, 2023

ABSTRACT

Indians have long been interested in education, both formal and informal. As a result, they created systems for knowledge creation, updating, and dissemination. The idea that education is important has persisted even through tragic and tumultuous history. The academic and professional preparation needed to become a licensed architect is called architecture education. Coursework, studio design assignments, internships, and professional practice are frequently combined. Depending on the program and level of study, architecture education programs are commonly offered at the undergraduate and graduate levels and can last between 4 and 6 years. A variety of subjects are often covered in the coursework in architecture education programs, including design theory, architectural history, building technology, structural engineering, sustainable design, and professional practice. The article aims to examine the challenges and opportunities in architecture education in India today and develop a suggestive framework for improving future architecture education.

KEYWORDS: Architecture, Education, Challenges, Opportunities.

1. INTRODUCTION

Architecture is the foundation of civilization because it recognizes and produces the effects of human thought [1]. As intellectual activities are brought about by consciously held beliefs, it is crucial to understand the factors that influence them and how they impact the mental and material discourse systems. According to Pierre Bourdieu, thoughts are a metaphor for the things in the universe on their own, reflecting in the countless number of metaphors (Bourdieu, 1977). But science demonstrates that there are some fundamental rules of logic that are required to prevent chaos in infinity [2].

These principles are examined throughout the article using Anthony Giddens' structuration theory and Pierre Bourdieu's habitus theory, presuming that everything has to do with changes in time and space. The position and current status of architectural schools, how to create the traits of an individual who encourages an innovative attitude, is investigated because architecture offers civilization-thinking artifacts with long-term results [3]. The characteristics of the educational system of architecture schools and

their relationship to the actual effects of the practice phenomena that are distinctive to India in comparison to the developed world are established after the influence of socialism on cultural and historical circumstances has been evaluated. The topic of how to educate architecture is nothing new. The issue, though, is that this subject needs a unique mobilization for the times we live in [4]. Since 2007, more than half of the world's population has called cities home. Cities are expanding, which necessitates a new strategy for their rational transformation, but first, we must comprehend their complexity in order to be able to raise the standard of living there. According to the current conversation, teaching architecture and urban planning also needs to be upgraded and advanced to keep up with the development of associated disciplines and the growing complexity of the built environment [5-6].From the development of traditional Indian architecture in antiquity, India has had a long and rich history of architecture education. With a focus on upgrading the curriculum and expanding access to high-quality education, India's architectural education has seen considerable changes and advancements in recent years. Several major themes and problems are revealed by an examination of the literature on architecture education in India, including:

Curriculum: In order to keep up with the evolving demands of the industry, many experts have emphasized that India's architecture curriculum needs to be modernized. According to a study by Devarajan and Rajan (2017), the curriculum needs to include more digital design and technology as well as sustainable design principles.

Pedagogy: The demand for a more student-centered approach to architectural education in India is being recognized more and more. In order to increase student engagement and outcomes, a study by Shah and Desai (2019) underlined the value of implementing active learning methodologies like project-based learning and peer collaboration.

Faculty Development: To ensure that India's architectural educators have the abilities and information necessary to impart contemporary design ideas and methods, there is a need for continual faculty development and training. According to a study by Gogate and Chandavarkar (2017), professional development programs should be created for faculty members so they can stay current with changes in the industry.

Access and Equity: Students from all backgrounds in India need to have more access to high-quality architecture education. More diversity and inclusivity are required in architecture education, according to a study by Ramachandran and Satish (2021), in order to give students from marginalized populations an equal chance to pursue professions in the field.

Professional Practice: The emphasis on professional practice and practical experience in Indian architectural education needs to be increased. More internship and field experience opportunities should be made available to students, according to a study by Sengupta et al. (2020), in order to better prepare them for the demands of the workplace.

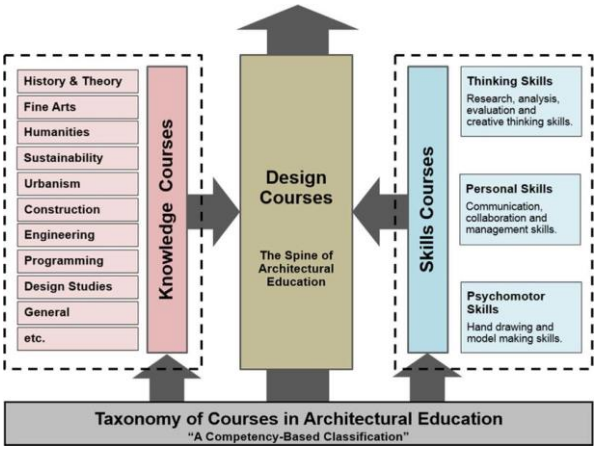

Fig.1 Taxonomy of Courses in Architecture Education [7]

Overall, the research indicates that India's architecture education is developing and adapting to the industry's shifting demands. The curriculum still has to be modernized, student-centered pedagogy adopted, faculty development improved, access and equity

increased, and professional practice emphasized [8-10]. The taxonomy of architecture education has been depicted in Fig. 1.

2. CHALLENGES IN ARCHITECTURE EDUCATION

- **Technological Evolution**: To be competitive, architects must keep up with the developments in technology. To stay ahead, this entails implementing new software, strategies, and tactics.
- **Restricted Access to Resources**: Some students may find it difficult to obtain access to the supplies, machinery, and technology they require for success due to the high cost and resource requirements of architecture school.
- **Lack of Diversity**: The profession of architecture has historically been predominated by men and is underrepresented, which can limit design perspectives and leave underrepresented groups unrepresented. Sustainability: Because of the substantial environmental effects of the built environment, architects must take these effects into consideration while designing sustainable and energy-efficient structures.
- **Architecture as a Business**: Another weak point in architecture education is the absence of any business training. Students studying architecture do not take business, marketing, or management courses. As a general rule, one professional practice class is insufficient. All students must learn the fundamentals of business in order to conduct their businesses successfully and advance professionally in this rapidly changing environment. Students in building science, architectural criticism, and structural steel design courses cannot be taught how to use conventional business techniques in accordance with their own demands in order to develop a career in the area [10-12].

One of India's major challenges in architectural education is limited access to resources. The facilities, technology, and resources needed by many colleges to provide high-quality education are lacking. A lack of trained and experienced instructors is a problem in India's architecture [13-14]. India's architectural education suffers from a lack of industry-academic cooperation. As a result, there is a discrepancy between the capabilities that educational institutions transfer and those that the business needs.

Opportunities in Architecture Education

- **Innovation**: Technology's quick development and society's shifting needs provide architects the chance to innovate and try out novel design concepts.
- **Collaboration**: To create well-rounded and collaborative design solutions, architecture education gives students the chance to work together with experts from other fields, such as interior design, engineering, and construction.
- **Social Impact**: Architects have the chance to design structures and areas that benefit society and tackle urgent social problems like affordable housing and climate change.
- **Diversity and Inclusion**: By offering equal opportunities to all students, regardless of their background or identity, architecture education may play a significant role in encouraging diversity and inclusion in the industry.
- **Focus on Skill Development**: In Indian architecture education, there is an increasing focus on skill development. The development of practical skills, such as project management, professional practice, and

construction management, is the focus of many programs' current course offerings.

- **International partnerships**: Foreign partnerships give Indian architecture students the chance to learn about advanced design techniques from throughout the world. With the purpose of providing exchange programs and combined degree programs, several programs are currently collaborating with foreign universities.
- **Creativity and entrepreneurship**: In India, architectural education is placing more and more focus on these concepts. With so many schools now offering courses on design thinking, innovation, and entrepreneurship, students can gain the knowledge and abilities needed to launch their own companies and businesses.

The number of architecture programs in India has increased significantly during the last ten years. Almost 500 architectural colleges are currently operating in India, according to the Council of Architecture. With growing environmental sustainability worries, India's architectural education has been placing more and more emphasis on sustainable design. Green construction techniques and sustainable design are now common topics for study in many curricula. India has seen a considerable increase in the incorporation of technology into architecture education. Building Information Modeling (BIM) and other digital design techniques are now covered in many curricula.

3. CONCLUSION

- As soon as the technology is used in the educational setting, it is considerably simpler to interact among various academic institutions and divisions within the same university. Yet, aspiring architects still don't make the most of this chance. Yet building relationships with other experts is vital for them. Sadly, from the start of their studies, architecture students are predisposed to view engineers, master builders, and other individuals as their primary rivals. However, such a proclivity is in no way advantageous to their line of work. In order to collaborate effectively with others in the future, it is crucial for ambitious professionals to connect with people from various areas. The true purpose of education is not to simply impart knowledge; rather, it is to foster the ability to understand information and transform ideas into original creative expressions. The constraints of vocations should be bridged by architects, separating vocation from career. Also, institutes ought to serve as places for debating, speculating, and testing novel concepts. The variety of ideas is advantageous to institutions. Senior students and faculty members must participate in the debate and the development of new theories and concepts. Architects should be creative thinkers and advocates for societal change, acting as both scientists and social workers. Lack of experience, lack of credibility, and lack of start-up finance are the main causes of job searching. In the modern day, institutes should operate as incubators for emerging talent to provide a continual supply of chances, while architects should be empowered to start up after graduation. As the practice of architecture nowadays is a business and architects categorically lack a business sense, it is important to instil a sense of business management through education.

4. REFERENCES

1. Kvan, T. (2001). The pedagogy of virtual design studios. Automation in Construction, 10(3), 345-354.
2. Mahdavi, A. (2003). Innovative approaches to architectural education: An introduction. International Journal of Architectural Computing, 1(1), 1-7.
3. Roudavski, S., & Steinfeld, K. (2015). Design studio pedagogy: Horizons for the future. Architectural Engineering and Design Management, 11(1), 1-14.
4. Thakur, D. S., & Sathpathy, D. (2015). Architecture education in India: Challenges and opportunities. International Journal of Engineering Research and General Science, 3(2), 369-375.
5. Walker, P. (2008). Design education and innovation. Design Management Review, 19(4), 32-37.
6. Zeiler, W. (2016). The changing nature of architectural education. Journal of Architectural Education, 70(2), 175-180.
7. Ghonim, M. and Eweda, N., 2018. Investigating elective courses in architectural education. Frontiers of architectural research, 7(2), pp.235-256.
8. National Institute of Technology, Trichy. (n.d.). Department of Architecture. Retrieved from https://www.nitt.edu/home/academics/departments/architecture/
9. School of Planning and Architecture, Delhi. (n.d.). About Us. Retrieved from http://spa.ac.in/About-us.php

11. "Architecture Education in the Digital Age" by Ashraf M. Salama and Flora D. Salim
12. "Architecture Education Today: Cross-Cultural Perspectives" edited by Ashraf M. Salama and Nicholas Wilkinson
13. "Architecture School: Three Centuries of Educating Architects in North America" by Joan Ockman.
14. "The Handbook of Interior Architecture and Design" edited by Graeme Brooker and Lois Weinthal.