

From Studio to Site: A Study of Skill Gap between Architectural Education and Professional Practice

ANUSHKA BAKLIWAL

Student, School of Architecture, IPS Academy, Indore

GUIDED BY: AR. SHAILJA SONI

Assistant Professor, School of Architecture, IPS Academy, Indore

Abstract -The shift from Architectural education to practice, is an important phase in the development and growth of an architecture student. It is identified that a significant gap exists between academia and professional practice. This research attempts to bridge this gap by studying the experiences, perceptions, and challenges of architecture students regarding their preparedness to enter professional practice. The data was collected using a structured survey targeting undergraduate students, postgraduate students, and recent graduates in India. The survey finding reveal the under preparedness of students, execution-based gaps identified in technical areas such as site coordination, technical skills, documentation primarily is due to deficient in practice-based training. The findings also revealed that architectural education has been effective in developing students in terms of conceptual and design thinking but has failed to focus sufficiently on their practical applications and professional aspects. The change from academic to professional practice has also been revealed to be slightly stressful, reflecting issues of adaptability and self-confidence. the study emphasizes the importance of learning models that are integrated with practical experience, organized collaboration with industry, and improved opportunities for hands-on learning. It concludes that closing the gap requires a systematic move toward matching architectural education with the practical, technological, and societal needs of the profession.

Key Words: *Architectural education, professional practice, skill gap, experiential learning, industry-academia collaboration, student perception, practice readiness.*

1. INTRODUCTION

1.1 Background

It is a wonderful experience of understanding something as rich, diverse, and integral as architecture. But a proper structure to how this knowledge is imparted with the cognizance of the evolution of the field would be a stepping stone in providing students who aspire to contribute positively to society one day. There are many ways in which

architecture makes this world a better place, and the most important of them happens to be the idea that it 'tries' to bridge the gap between imagination and reality. With good opportunities, students in this field would discover many more parts of what architecture has to offer us.

A balance between theory and practice must be established early, thus giving students the chance to fully comprehend the profession. This would help in a smooth transition to the practical world after college life.

1.2 Problem Statement

In today's architecture, the challenge of bridging the gap between theory and practice in architectural education is more critical than ever. Many newly graduated architects and designers find that academic coursework in architectural education emphasises theory, but does not sufficiently prepare them for the realities of professional practice.

They face challenges like lack of technical execution skills, client communication, management of the project at all stages, and understanding practical workflow.

The lack of practical understanding further affects the efficiency of the architectural profession; firms have to invest their time in training the technical parameters to the graduates.

1.3 Need for the Study

The need to emphasise this topic comes with the growing recognition about the growth in architecture and the changes and upcoming demands in the profession with time. With the increase in clients demands, increase in design complexity, climate responsive design, sustainability and the social responsibility as an architect increase.

Understanding student's and intern's experience and perceptions to understand their preparedness for practise, to find the shortcomings and key areas where architectural education diverges from professional requirement.

By analysing these perspectives, this study aims to highlight area where improvements can be made and to provide strategies that help to bridge the existing gap between architectural training with professional training.

1.4 METHODOLOGY

This research is arranged in the following chapters:

Chapter 1: Introduction

It covers the abstract, the background, need, methodology and limitations of the study.

Chapter 2: Data Analysis

Survey data collection through google form, presentation through bar charts, graphs and pie chart.

Interpretations from each question.

Chapter 3: Findings

the outcomes of the survey questionnaire.

Chapter 4: Discussion

Interpretation of the survey findings along with the objectives of the research.

Chapter 5: Recommendations

To suggest strategies that can help in bridging the gaps identified in the research.

Conclusion:

Summary of the survey and key insights and the implications of the strategies proposed.

2. DATA ANALYSIS

A survey was conducted by floating a google form, prepared with strategic questions. the objective was to understand student's and intern's experience and perceptions, challenges faced by them and the shortcomings and key areas where architectural education diverges from professional requirement.

2.1 Respondent Profile

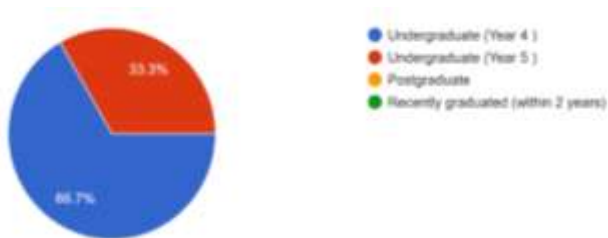


Fig -1: Majority respondents: Undergraduate (Year 4 & 5), Source: Author

Have you completed a professional internship / training?
6 responses

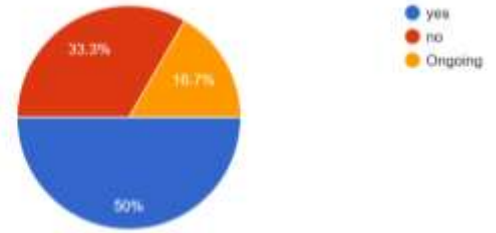


Fig -2: Internship exposure: Mixed (both with and without training experience), Source: Author

Analysis:

This shows the majority of the respondents are undergraduate thus, their responses are highly relevant as they are currently experiencing the same phase.

50% of the respondents have completed their internship while 16.7% are ongoing with it.

2.2 Preparedness for Professional Practice

How well does your architectural education prepare you for professional practice?
6 responses

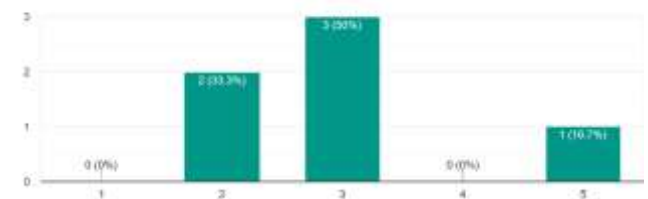


Fig -3: Mean preparedness, Source: Author

Analysis:

The chart reveals that majority of the students feel they are not fully prepared and lack confidence in entering professional practice.

2.3 Stress During Transition to Practice

How stressful was the transition from academics to professional training?
6 responses

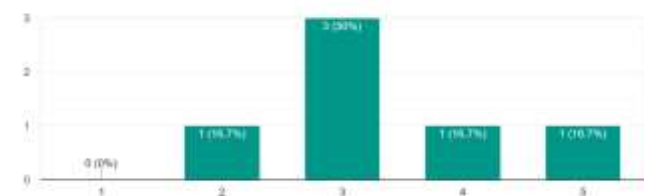


Fig -4: Mean stress level: 3.33 / 5 → Moderately high, Source: Author

Analysis:

The transition from studio learning to office/site work is stressful. Indicating low professional adaptability.

2.4 Skill Gaps Identified During Internship

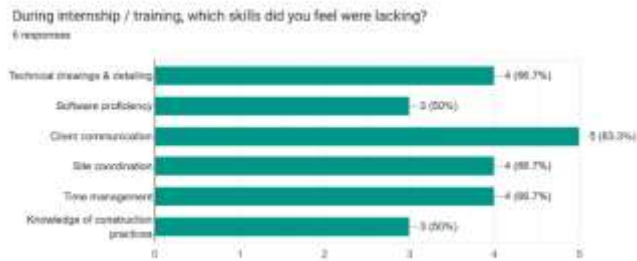


Fig -5: Most lacking skills felt by the students, Source: Author

Analysis:

The gap does not exist in conceptual design, but in **execution based practical skills**. Students struggle with:

- Technical drawings
- Detailed drawings expected for the execution of the project.
- Communication skill, with respect to interaction with client.
- Site coordination
- Time Management
- Construction Practice knowledge lacking

This shows a **practice-readiness deficit**, not a design deficit.

2.5 Role of Teaching Methods

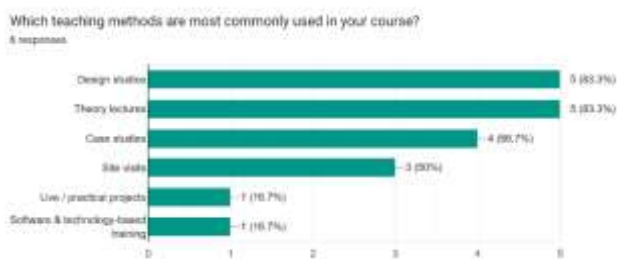


Fig -6: Teaching Methods used, Source: Author

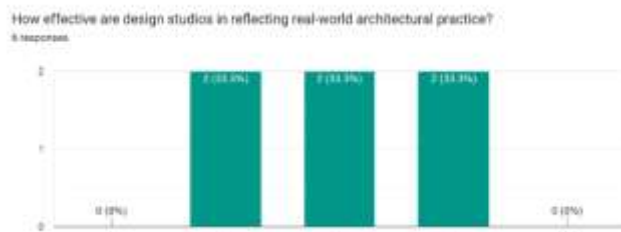


Fig -7: Effectiveness of design studios, Source: Author

Analysis:

Common Teaching methods:

Design studios and theory lectures are most commonly used teaching methods.

The lowest rated were live/practical projects and software/technology-based training.

The effectiveness of studios in real world practice is rated **moderate**:

Studios are strong in **conceptual thinking**, but weak in:

- technical integration
- documentation
- real project constraints

2.6 Professional Exposure

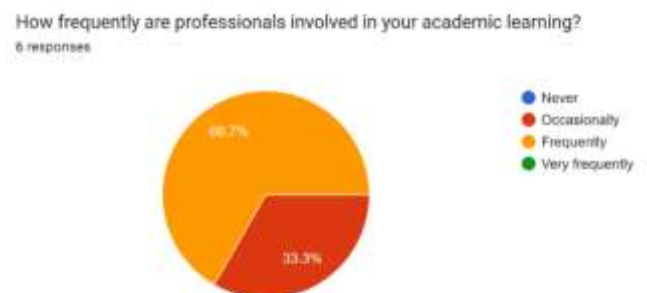


Fig -8: Professionals were involved **occasionally to frequently**, but not consistently, Source: Author

Analysis:

The pie chart shows that professionals are involved but frequently. Thus, lack of industry collaboration leads to reducing its impact on professional readiness.

2.7 Theory vs Practical Focus

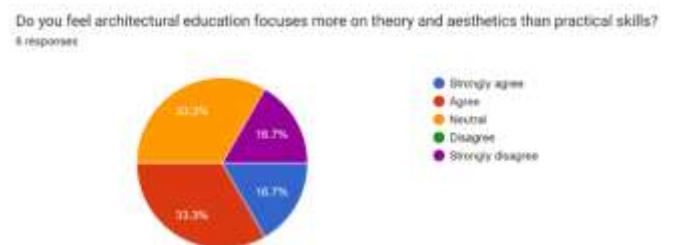


Fig -9: Source: Author

Analysis:

Majority Students feel that architectural education focuses more on theory and aesthetics than practical skills.

2.8 Student Suggestions

Recurring themes:

- Focus on more practical-based learning
- Stronger industry–academia collaboration
- More professional lectures and live projects
- Updated software training

Analysis: Students are aware of the gap and demand practice integrated learning methods for better understanding and professional learning.

3.FINDINGS

The survey reveals that majority of students feel **moderately prepared** for practise. They also confirm that a **clear gap exists between academic learning and the expectations in practice**. This indicates that students and graduates are aware of the issue.

Students state that the transition to professional practice is **moderately stressful**, indicating towards **anxiety and self-doubt** about that preparedness for stepping in to the real-world.



IMAGE 1

Source: The Reality_ ©Leewardists

The **major gap lies in execution-based skills** such as client communication, technical documentation, specifications, site coordination etc. This highlights that **students have design ability but lack in translating it into practical outcomes**.



IMAGE 2

Source:<https://i.pinimg.com/1200x/cc/f7/dc/ccf7dc6c46e2734107cf3a80c08db680.jpg>

Many students **agreed that education leans more toward theory and aesthetics than practical skills**. this confirms that aesthetics is prioritised over practical skills. They also feel that **professional exposure** in academic learning is irregular and **inconsistent**. Thus, reducing experiential learning opportunities.



IMAGE 3

Source:<https://i.pinimg.com/1200x/da/bc/1c/dabc1c80417f50b6954c97755f1f4db1.jpg>



IMAGE 4

Source:<https://i.pinimg.com/736x/b1/5c/8d/b15c8d863a73ff98cf540bf1f19a4ff4.jpg>

4. DISCUSSION

The findings show that the gap between architectural education and practice primarily is due to deficient in practice-based training. In many of the current scenarios, academia is only limited to evaluate the outcome of the students rather than considering it as a mandatory requirement to improve their skillset and outcomes at a beginner level. The missing link in the overall scenario is the delay in introducing students to the professional field. this creates confidence lapses in students' learning and grooming process, which also reflects when they go out to face the field hands-on. As the minimum interactions built, the poor attitude of approach and less professional confidence compared to the optimistic side of it.

5. RECOMMENDATIONS

Key Areas to Bridge the Gap in Architectural Education

5.1 Integrating Studio Practice & Real-World Projects

Student's engagement in practical tasks such as technical documentation, regulatory compliance, construction coordination, detailing and communication skills, alongside design theory is essential they get to deal with live-projects with real world constraints. This is the most effective way to align education with professional demands. Despite advancements in architectural design tools, nearly 55% of architecture colleges still emphasize manual drafting techniques over digital modelling, according to a COA survey.



IMAGE 5- Engaging Setting_©Better Bamboo Buildings

Source: <https://www.rethinkingthefuture.com/narratives/a7191-bridging-the-gap-between-theoretical-and-practical-learning/>

5.2 Enhancing Practical Skills & Technical Competency

Beyond design theory, future architects need to develop skills such as:

- Construction methods and detailing
- Digital modelling (BIM, CAD) and drawing production
- Building codes, contractual processes, and site supervision



IMAGE 6- Real World Construction Experience_© Auroville Earth Institute

Source: <https://www.rethinkingthefuture.com/narratives/a7191-bridging-the-gap-between-theoretical-and-practical-learning/>

5.3 Strengthening Industry-Academic Collaboration

Academic institutions often struggle to maintain long-term relationships with industry partners due to limited engagement or mismatched expectations. structured partnerships must be established between universities and architectural or construction firms. This means guest lectures by practitioners, joint workshops, internships and mentorship. Such collaborations help students experience the realities of professional practice while still in the academic environment.



IMAGE 7 - In situ work experience_© Hunnarshala Foundation

Source: <https://www.re-thinkingthefuture.com/narratives/a7191-bridging-the-gap-between-theoretical-and-practical-learning/>

5.4. Curriculum Reform & Experiential Learning

Schools must reform architectural curricula to include experiential learning components — real projects, live briefs, and assessment based on both design and execution. The shift from purely theoretical assignments toward practice-based learning is essential.



IMAGE 8 – Working as a Team_©Made in Earth

Source: <https://www.re-thinkingthefuture.com/narratives/a7191-bridging-the-gap-between-theoretical-and-practical-learning/>

5.5 Preparing for the Digital & Construction-Focused Era

As we know, the architecture, engineering and construction has become more digitally advanced, architectural education must adapt to these changes. Students must be made familiar

with construction workflows, BIM coordination, model handover, collaboration platforms and site realities.

Strategies for Students, Educators & Early-Career Architects

Students: Seek internships, practical workshops, collaborative studio work and electives that focus on construction documentation or site coordination.

Educators: Update curricula to include live briefs, site visits, integration of digital tools and technological advancements.

Early-Career Architects: Bridge the gap by reflecting school theory into on-site practice, ask for mentorship, participate in construction coordination, document your learning and growth.

Firms: Invite graduates who show both design and execution competence, and participate in university collaborations to shape future curricula.

CONCLUSION

This paper aimed to find the gaps associated with students shifting from academia to practice, and who can we strengthen academia - industry collaboration in the Indian architectural sector. The Data was gathered through a structured survey aimed at undergraduate students and recent graduates. The study has tried to identify critical gaps between academia and industry needs. Also presented recommendations to improve this gap, so that architectural education can better prepare students to become more confident, adaptable and socially responsive practitioners.

For better industry-academia collaboration, it is necessary to introduce students to the professional field, creating confidence in the students' learning phase, which incorporates in their understanding and skills about the field, and also reflects when they go for practice.

By bridging the gap between theory and practice, academia and industry can drive innovation, confidence and contribute to the growth of the architectural profession. In conclusion, the ongoing collaboration between academia and industry in the field of architecture is pivotal for cultivating a well-rounded and industry-ready generation of architects. By continuing to foster these partnerships, both academia and industry stand to benefit from the shared knowledge, resources, and innovative ideas that emerge from their collaborative efforts.

REFERENCES

BIBLIOGRAPHY

1. BRIDGING THE GAP: INDUSTRY-ACADEMIA COLLABORATION IN ARCHITECTURE Srisoma Konduri 1, Bipasha Kumar 2, Deepashree Choudhury 2 1 M. Arch 1st Year, AIT-SAP, Greater Noida, India 2 Professor at AIT-SAP, Greater Noida, India , <https://doi.org/10.29121/shodhkosh.v5.i1CoMABE.2024.2155>

2. Gaps Between Practice and Education of Architect—A Study of

India, https://doi.org/10.1007/978-3-319-42070-7_20

3. Al-Matarnah, Rana and Mansour, Ashraf (2016) "BRIDGING GAPS IN ARCHITECTURAL EDUCATION: DEVELOPING A PROFESSIONAL AND CAREER-ORIENTED CURRICULUM," Architecture and Planning Journal (APJ): Vol. 23: Iss. 2, Article 19. DOI: <https://doi.org/10.54729/2789-8547.1088>

4. Changing Architectural Education: Towards a New Professionalism, edited by David Nicol, Simon Pilling,

https://books.google.co.in/books?hl=en&lr=&id=sF4AgAAQBAJ&oi=fnd&pg=PA1&dq=gap+between+architectural+education+and+profesional+practise&ots=2HKSfqyiA3&sig=s1nq21KYy2wdlexAekR0_o6MoI&redir_esc=y#v=onepage&q&f=false

WEBLIOGRAPHY

https://www.re-thinkingthefuture.com/architectural-community/a8571-the-gap-between-architectural-education-and-practice-in-todays-scenario/#google_vignette

<https://link.springer.com/article/10.1007/s43995-025-00274-2>

<https://www.re-thinkingthefuture.com/rtf-fresh-perspectives/a1465-addressing-the-gap-between-architectural-education-and-practice/>

<https://www.re-thinkingthefuture.com/rtf-fresh-perspectives/a1465-addressing-the-gap-%20between-architectural-education-and-practice/>

<https://i.pinimg.com/1200x/da/bc/1c/dabc1c80417f50b6954c97755f1f4db1.jpg>

<https://www.re-thinkingthefuture.com/narratives/a7191-bridging-the-gap-between-theoretical-and-practical-learning/>