

CONFLICT BETWEEN ACADEMIA & PRAXIS

By: Architect Umar Saeed

June, 2023

Table of Contents

Abstract

<u>Chapter No. 1 - Introduction</u>	5
1.1 Problem Statement	5
1.2 Scope of Research	5
1.3 Expected Outcome	5
<u>Chapter No. 2 – Research Framework</u>	6
2.1 Critical Framework	6
2.2 Research Objectives	6
2.3 Research Questions	6
2.4 Research Methodology	6
2.5 Qualitative & Quantitative Research	6
<u>Chapter No. 3 – Architectural Academia</u>	7
3.1 Schools of Thought	8
3.2 Architecture Education System	8
3.3 Department of Architecture	8
3.4 Architecture Curriculum	9
3.5 Faculty of Architecture	9
<u>Chapter No. 4 – Architectural Practice</u>	10
4.1 Architectural Praxis of Pakistan	10
4.2 Relationship between Architecture Academia & Praxis in Pakistan	10
4.3 The Inception of the conflict between Academia & Praxis	10
<u>Chapter No. 5 – Data Collection & Analysis</u>	11
5.1 ARCASIA member institutes	12
5.2 Architectural Design Studio Modules of Pakistan	12-15
<u>Chapter No. 6 – Results & Findings</u>	16
6.1 ARCASIA member institutes	16
6.2 Study of Architectural Design Studio Modules of Pakistan	17

<u>Chapter No. 7 – Proposed Solutions</u>	18
7.1 Breaking the Isolation & Bridging the gap	18
7.2 Duration of the degree Program	19
7.3 Scale of the Projects.....	19
7.4 Faculty of Practice.....	19
7.5 Revision of Curriculum with global affiliations in modules	19
<u>Chapter No. 8 – Discussion</u>	20
8.1 Crearting a Disruption in the Architectural education of Pakistan	20
8.2 Predictive Analysis.....	21
 <u>CONCLUSION</u>	 22
 <u>ACKNOWLEDGMENTS</u>	 23
 <u>REFERENCES</u>	 23

CONFLICT BETWEEN ACADEMIA & PRAXIS

Umar Saeed^{1*}, Basma Iqbal^{2*}

¹Chairman BAE-IAP, Pakistan

¹Board of Architectural Education (BAE) – Institute of Architects (IAP) Pakistan

¹Vice President Asia – Commonwealth Association of Architects (CAA)

¹Faculty, National College of Arts (NCA) Lahore, University of Lahore (UOL) Pakistan

²Student, NCA, Pakistan

*Corresponding Authors

Abstract:

Being a practicing Architect and Educationist for the past 25 years led me to observe a growing gap between the two main pillars of our fraternity. Academia strives to yield the finest architects by providing its students a congenial environment for learning and creative innovation while Praxis struggles to execute creativity with practicality. Academia drives students to explore their imagination to limits unknown to their conscious self in hopes to unlock their unique creative identity and prepare them to etch their mark in an unpredictable competitive world. Therefore, educators constantly introduce innovative and “out of the box” ideas and theses into the curriculum to prepare the future generation of Architects to test and prove their mettle in the practical world.

However, the transition from academia to praxis is not as simple. Pakistan prides itself with the likes of renowned Architects, Mr. Nayyar Ali Dada, Habib Fida Ali, Kausar Bashir Ahmed, Mrs. Yasmeen Lari but the architectural community still struggles to harmonize the balance between creativity and practicality. We teach our mentees to cross all bounds of imagination only to restrict them to conform to community standards later. Thus, creating a paradox of confusion. Thesis jurors, often industry experts and greats, when invited by educational institutions to judge student juries are, often left baffled by the impracticality of student theses/projects. Moreover, when in the fortunate event they are hired for employment in esteemed organizations, they are faced with ridicule for lack of basic knowledge about fundamental requirements of the prevailing market and its conditions. Fresh graduates look up to their seniors and mentors for direction and semblance of clarity. But what is to be done when their very same mentors are seen downscaling their creativity to meet restrictive by-laws, cost restraints and client approval to deliver a feasible and complacent project.

I have traveled far and wide only to conclude that the two exist in isolation to the other. However, it is possible to co-exist in harmony if global prominence is given to pave the way for the rest to follow. If provided the platform, there can be prospective solutions to bridging this gap. Once we can start coming up with some concrete resolutions, we can then identify a series of solutions that can shape the Architectural Education for the future. Due to the reason that I am a practicing architect on one side and Chairman of Board of Architectural Education IAP on the other, it gives me a unique opportunity of coordinating between the two groups towards workable solutions which can be applied not only in Pakistan but most of the countries in Asia facing a similar conflict.

Keywords: Architecture, Architectural Education, Architecture Practice, Pakistan, Conflicts

Chapter 1: INTRODUCTION

Architectural education has long been in need of a modification in Pakistan. We must trace back our steps and see where we went wrong along the trails of architectural education. The first recorded architectural school in history didn't have grades or even assignments.^[1] This may seem disruptive now but could this very notion fix the problems we are facing today? Learning should never be about competition or glorification and some countries are already embracing this concept.^[2]

The Académie d'Architecture in France, which was established on 3rd December 1671, during the lengthy reign of Louis XIV, was the first institution specifically designed to train students in architecture.^[1] Behind every school, there is a ***“School of Thought”***. Understanding this is very crucial when it comes to the foundation of any sort of training especially architectural education. Although Académie d'Architecture's initial purpose was primarily ideological and propagandistic, it eventually developed into a strong organization for practical teaching.^[1] From this, we can identify the foundation of Pakistan's existing education dilemma. The roots of architectural education may have started with another ideology but as time passed, regimes changed, the objectives also changed. There is an unspoken glorification of the profession and education of Architecture. This glorification has led to issues which have stunted the capabilities of graduating students. They are simply not prepared for the market's demands even after investing 5 years in a school of Architecture.

1.1 Problem Statement

All the stakeholders in the fraternity of architecture have been working in isolation. The academia, practicing architects, governing bodies and adjunct associations are members of this community. Each have formed their own glass bubbles; visible to each other but not in dialogue with one another. This isolation has created a gap. The Academia and praxis have not created a discourse with each other and therefore by the time one bubble collides with the other, they shatter instead of merge together. The fresh graduates are met with professional architects who are utterly disappointed at their lack of practical knowledge. This is where the conflict began. Considering the average lifespan of a Pakistani is approximately 65.5 years of age^[3], most architects get an average of 40 years to practice architecture and even in these four decades, they hardly get to design a project of grandiosity as often taught in our studios. (See Fig.0) Whereas, the four decades that they ***do*** spend most of their time on, are hardly practiced in studio. The projects are much smaller in scale than explored in studio classes.

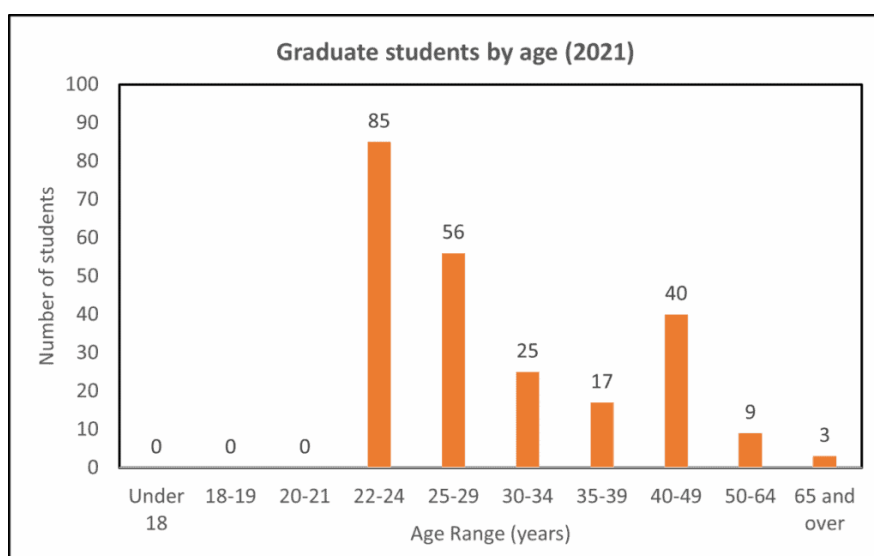
1.2 Scope of Research

This paper will explore the past, present and future of Academia with respect to the profession of Architecture. It will identify why fresh graduates and practicing architects are unsynchronized and what can be done about this. It aims to study the benefits in taking action as well as risks involved in ***not*** taking timely arrangements for resolution of the identified conflict.

1.3 Expected Outcome

The purpose of this research is to create a series of dialogues to bridge the gap that has been created between academia and practice. This is the first pebble thrown in the right direction to create a series of ripples in the architectural community of Pakistan to make well-informed changes in the system of architectural education.

Figure 0 – Average age of graduated student after which they join the workforce



Chapter 2 – RESEARCH FRAMEWORK

2.1 Critical Framework

As mentioned earlier, architectural education cannot be seen in isolation. So, we expanded our research to other Asian countries and surveyed their educational bodies. It gave us a critical lens to work with and observe our own findings. Theoretically, some countries face similar issues whereas some do not and have been discussed in the paper.

2.2 Research Objectives

The objective is to come up with solutions to break the isolation between both the pillars of architecture i.e Academia and Practice and to discover solutions to resolve the conflict.

2.3 Research Questions

Q1) - What is the conflict between Architectural Academia and Praxis and how did it come about?

Q2) - How can this conflict be resolved?

Q3) - What are the consequences of resolving the conflict between Academia and Praxis?

2.4 Research Methodology

A series of discussions were held. A Survey and collection of Data from multiples universities about their faculties, projects, durations and curriculums were also conducted.

2.5 Qualitative & Quantitative Research

A combination of both Qualitative and Quantitative research is employed in this paper. Discussions, literature review and surveys formed the Qualitative research whereas factual data collected from universities and surveys from educationists formed the quantitative research.

Chapter 3 – ARCHITECTURAL ACADEMIA

3.1 Schools of Thought

Scale of Projects: During the process of over glorifying the architectural education ^[5], the academia lost track of the “Scale of the projects”. Every student wanted their project to be bigger than the other student’s, in order to impress the teachers and incoming external jurors. The faculty played along until the small-scale projects in the earlier years have risen to a mid-size project almost eliminating small size projects where the students can learn each and every basic detail that they are supposed to know at the time of working in an office. The competition between institutes might have also played a role in this race towards large size projects.

Time Duration: Since the scale of most of the projects is astronomically big, the time duration needed to work on each project is in direct proportion and fairly long. (*See Fig. 7*) So, the direct argument will be that if the scale of the projects is brought down in each semester, there is a strong possibility that the entire course can be completed in relatively less time, say in four years instead of five. However, the focus will change towards the originality of the projects and the details from inception to working drawings rather than the scale. If you get more done in less time, you can increase your productivity. ^[5]

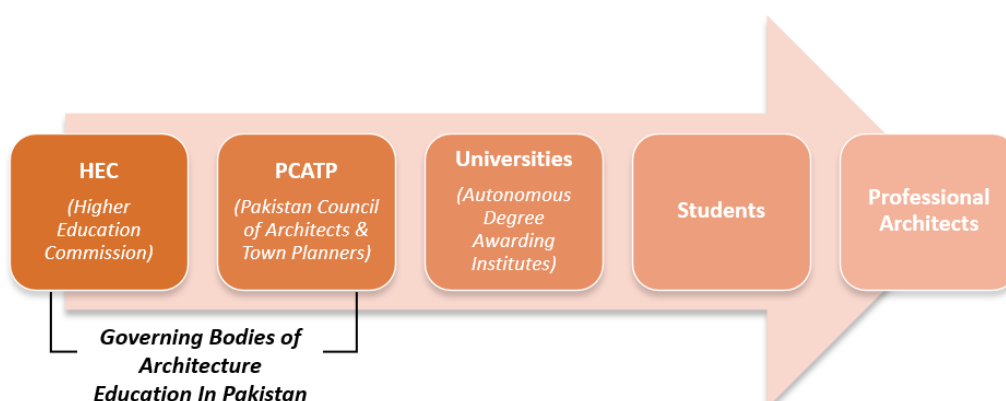
Couse Outline: As already discussed, this will help us define what exactly we want our students to know by the time they graduate. As of now, almost every university is offering similar projects of same scale so producing similar type of graduates without identifying their strengths. Once the scale of the projects is reduced and time duration is worked on, the course outline will define the specific direction or school of thought of a specific department. The interested students will be seeking admission in that specific department of Architecture because of their direction and school of thought.

3.2 Architecture Education System

If the students are given small to medium size highly practical projects where they are challenged to create out of the box solutions, they can immediately be implemented in the field. As a result, the architects these graduates work for will also benefit and appreciate these efforts. If this approach is adopted, we can see a total change of architectural direction towards a more sustainable and futuristic design which our country direly needs. There are a couple of key players when it comes to enforcing these changes.

- Governing Educational Authorities
- Architectural Councils or Associations
- Academic Institutions

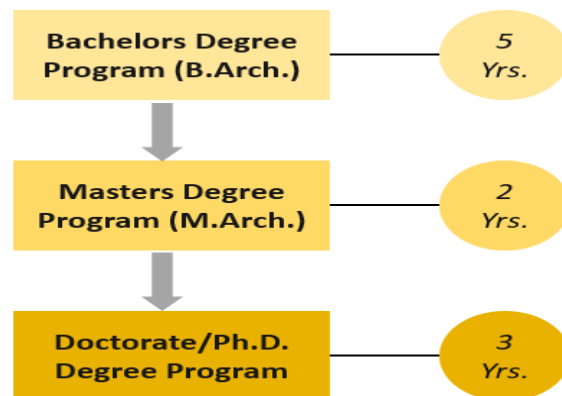
Figure 1: Stakeholders in the fraternity of Architecture in Pakistan



3.3 Department of Architecture

In Pakistan, the departments of Architecture in universities offer 5-year bachelor degree programs (B.Arch.), 2-year Master of Architecture (M. Arch.) programs and 3-year Ph.D. / Doctorate degree program. Some universities now offer Bachelor of Interior design and Master of Interior design programs under the department of Architecture.

Figure 2: Department of Architecture



3.4 Architecture Curriculum

The first national architectural studies curriculum was designed by a group of practicing Architects in mid 60s. Ar. Pervez Vandal, Ar. Kausar Bashir Ahmad, Ar. Kamil Khan Mumtaz are some of the members of this group. Since then, it has regularly been revised according to growing needs of the profession. ^[4] Currently HEC^{*1} is one organization which spearheads all revisions of curriculums with the help and support of PCATP^{*2}, IAP^{*3} and representations from all universities under the (NCRC)^{*4}.

In Architectural education, educators or curricula formulators must always see if the following are delivered on a regular basis in a degree program:

- Practical Experience
- Rebalancing specific knowledge
- Imparting or enhancing Skill sets
- CPD (Continuous professional development)

Changes must often be implemented to adapt to evolving industry needs, advancements in technology, or to align with international standards. This can be achieved by modifications in curriculum, accreditation requirements, licensing processes, or the overall structure of architectural programs.

3.5 Faculty of Architecture

In a conventional Bachelor of Architecture degree program, the faculty is made up of **Permanent & Visiting faculty**. The permanent faculty members are required to be present at the university for the entire duration of the class and program. Due to the fact that these academicians are present full-time the entire week, the system discourages them to work on any project related to their field. Due to this reason, these academicians start becoming aloof from the practice of Architecture. Teaching does not pay very well in Pakistan which is why practicing architects are seldom joining the faculty.

On the other hand, the visiting faculties who are normally good at their practice teach for a limited number of hours & for a specific class. They are not interested in the pay but are willing to impart knowledge acquired while working as a practitioner. During their discussions, they refer to their projects and real time problems with solutions. ^[6] This makes them a more desirable teacher who balances conceptual and practical aspects of projects.

If the permanent faculty members are not over-burdened with the secretarial work and their studio working hours are reduced, this will be beneficial for the faculty and the students. It will encourage them to work on their projects in the field whilst involving their students in these projects. The faculty will grow professionally, be up-to date with market and industry and disseminate their applied knowledge to the students as well. This will reduce the need for permanent faculty and there will be a rise in the faculty of practice.

Figure 3: Gap between Academia & Praxis



In addition, the visiting faculties should also be given preference and respect as they are mostly not investing their time on these students for the money but out of altruism. Their efforts should be acknowledged under some sort of frame work and I believe a separate **“Faculty of Practice”** should be introduced in every university. The bridge between Academia and Praxis can be built by the collaboration of permanent faculty and faculty of profession for their students.

Since the faculty of profession is actively involved in day-to-day projects, they can be consulted to create close to real time assignment with real time sites thus the students can fit in the office environment easily.^[5]

With this approach, the students can even identify their strengths and excel in their own specific direction rather than being directionless or under motivated.

*1 Higher Education Commission Pakistan

*2 Pakistan Council of Architects & Town Planners

*3 Institute of Architects Pakistan

*4 National Curriculum Revision Council

Chapter 4 – ARCHITECTURAL PRACTICE

4.1 Architectural Praxis of Pakistan

The academia is responsible for shaping the thought process of all architectural students. With the recent events of climate change, the whole world is looking towards these departments to reshape their course outline towards **sustainability**. This young population of Architects is going to play the most important role in reshaping our future. Unfortunately, the above approach is missing in the practitioners. They are so caught up in visualizing their projects with strict bylaws and unending desires of the clients that most of them have forgotten the amazing heritage, dynamic culture, old methods of construction and use of local architectural language. There has been a white-washing of our history and heritage. Under the banner of Global village, we have forgotten who we actually were not long ago and thus lost our identity.

4.2 Relationship between Architecture Academia & Praxis in Pakistan

In Architectural juries, the external jurors who are normally practicing architects are found frustrated at the lack of practical information in the students' thesis projects. The Academicians are also affected by this as it is under their mentorship that these students took forward their projects. When the Jurors give their feedback to the students and their teachers, it creates clashes because the permanent teachers cannot relate to the jurors.

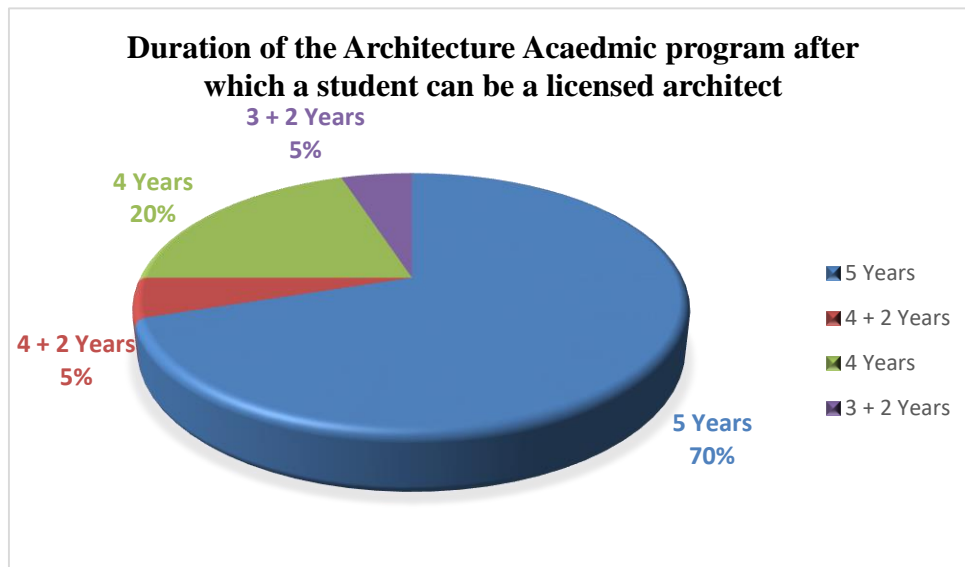
4.3 The Inception of the conflict between Academia & Praxis

Fresh out of university, the graduated students are then tasked with small scale projects such as residential units at the first day of work in most architectural offices in Pakistan. Whereas their final years in the university were invested in several large sized projects like hospitals, universities, multistory corporate towers, terminals, etc. This creates a gap and the practicing architects are often found frustrated by these fresh graduates as they do not know how to tackle small-scale projects and are often weak in details.

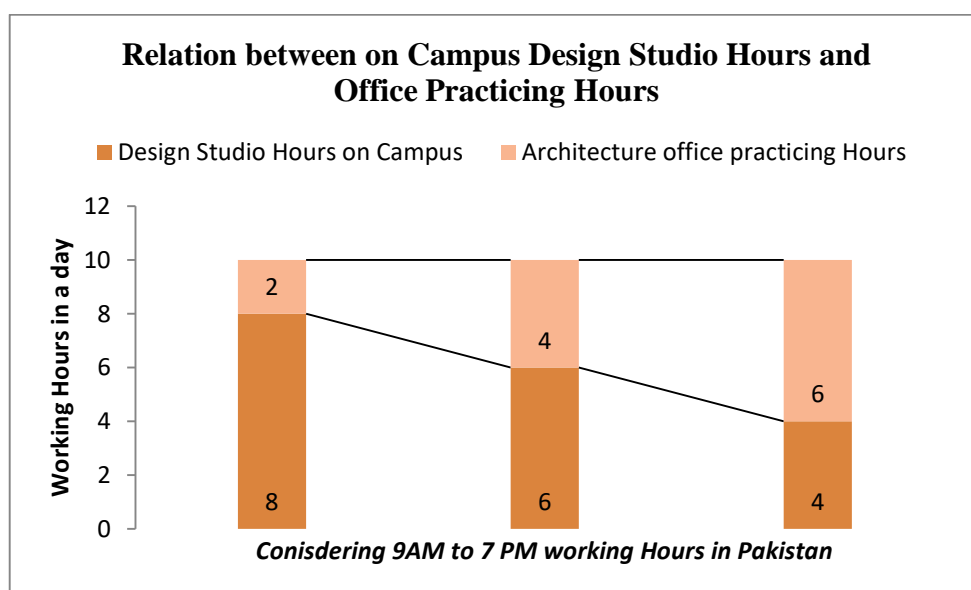
Chapter 5 - DATA COLLECTION & ANALYSIS

5.1 ARCASIA member Institutes

There are 22 member institutes of ARCASIA*. We conducted a survey among my board of education counterparts within ARCASIA and our findings became one of the main drivers of this paper. Having viewpoints from multiple countries in Asia, gave us a better perspective on the identified conflict.

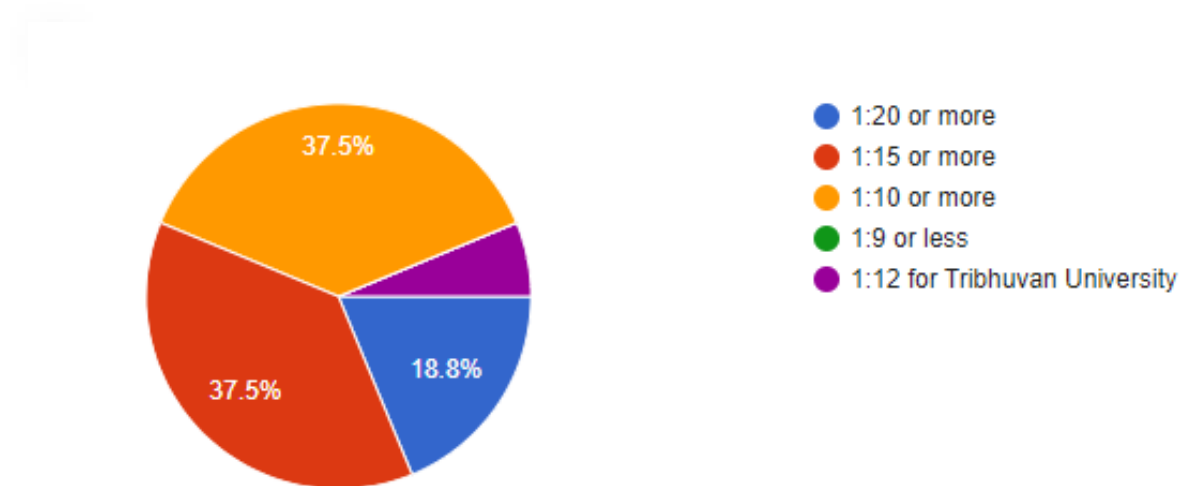


70% of programs are 5 years long, some with different divisions. Most participants believed in the 5-year B. Arch. program but there is an emerging trend seen towards 3+2 combination in Architectural Studies, where the students can complete their B.Arch. in 3 years but to be a licensed architect, they will need to complete 2 years of M. Arch.



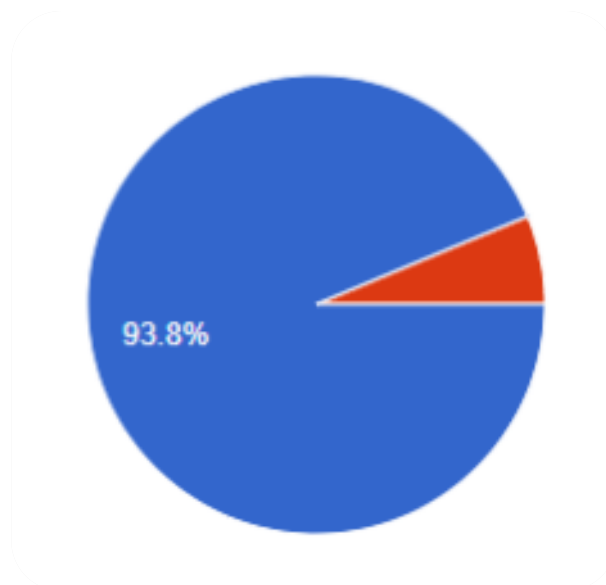
The longer the campus hours for **teachers**, the less time they get to work on architecture projects in the field. A healthy balance can be found. Commute and break times are not considered in the above graph. The same can be assessed for **students** as well. If they are in the university from morning till late afternoon, they will not get a chance to explore the possibility of working in an office as internee except during summer break.

Teacher to student Ratio in the Architecture Studio in Degree Program



On average, 37.5% of the universities have a 1:15 and 1:10 teacher to student ratio.

In the figure below, it can be seen that 93.8% of universities revised their curriculum and other aspects of their education systems in the last 10 years.



5.2 Architectural Design Studio Modules in Pakistan

As of now, I have collected data from 4 universities out of the total of 31. The details of the programs can be seen in the images below.

Figure 4 : 1st year Design Studio Modules

1st Year					
1st Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	4	Shape/ color and value	—	4 weeks
			Texture and application	—	4 weeks
			Composition	—	4 weeks
			Geometrical Analysis	—	4 weeks
2	Beaconhouse National University	4	Observation and Perception	—	3 weeks
			Making and Modelling (3D)	—	3 weeks
			Master, Media and Memory	—	3 weeks
			History, Literature and Narrative	—	3 weeks
3	University Of Lahore	4	Elements of Design	—	1 weeks
			Principles of Design	—	2 weeks
			Gestalt Theory	—	1 weeks
			Origami and Geometric art installations	—	1 weeks
4	National College of Arts		Foundation Year	—	16 weeks
2nd Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	4	Additive/ subtractive forms	—	4 weeks
			Building spaces	—	4 weeks
			Anthropomorphic	—	4 weeks
			Introducing an environment	—	4 weeks
2	Beaconhouse National University	4	Light	—	4 weeks
			Space	—	4 weeks
			Structure	—	1.5 week
			Dwelling of Artist	3,000 sqft	6 weeks
3	University Of Lahore	6	Introduction to space & planes	—	4 days
			Circulations	—	4 days
			Articulation of space	—	2 days
			Addition & subtraction	—	1 weeks
			Anthropometry	—	4 days
			Bedroom & Bathroom design	—	4 weeks
4	National College of Arts		Foundation Year	—	16 weeks

Figure 5: 2nd year Design Studio Modules

	2nd Year				
	3rd Semester				
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	4	Interpreting and making	—	5 weeks
			Composition, Movement and Experience	900 sqft	5 weeks
			Being with a tree	10 ft rad	1 week
			Poetics of Space	1,800 sqft	7 weeks
2	Beaconhouse National University	2	Generic Site Programming for School	1,500 sqft	7 weeks
			Trip-Based Artisan Community	2,000 sqft	7 weeks
3	University Of Lahore	7	Translating Intent: architectonics.	—	1 week
			Exploring Potential: Sculpture	—	1 week
			Exploring Geometry: Grid as a tool for design	—	2 weeks
			Exploring Versatility: Transformative Spaces	—	1 week
			Exploring the City: Reading Spaces	—	1 week
			Bridging the Gap: Design Narrative	—	1 week
			Space as Identity: Designing a House	14 kanal	9 weeks
4	National College of Arts	3	Geometric Analysis	—	5 weeks
			Study of Light	—	5 weeks
			Materials and Materiality	—	6 weeks
	4th Semester				
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	3	Introduction to site, user, program	—	4 weeks
			Program building	—	7 weeks
			Materiality and composition	—	7 weeks
2	Beaconhouse National University	2	Tectonic/ Prosthetic Attachment to Existing Building	1,000 sqft	6 weeks
			Memory and Place	10,000 sqft	8 weeks
3	University Of Lahore	2	Mosque Design	2,000 people	12 weeks
			Parasitic Architecture: Pod Library	2-3 people	4 weeks
4	National College of Arts	3	Reading Context (Natural Landscape)	—	7 weeks
			Design Charrette	—	2 weeks
			Reading Context (Urban Historical Context)	—	7 weeks

Figure 6: 3rd year Design Studio Modules

	3rd Year				
5th Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	3	Introduction to rural context	—	4 weeks
			Introduction to Peri urban context	9,000 sqft	6 weeks
			Housing Project	9,000 sqft	8 weeks
2	Beaconhouse National University	5	Mohan Niwas Haveli - A Reimagining	7,000 sqft	6 weeks
			Matrix, Transformation	20,000 sqft	6 weeks
			Narrative Architecture - Lahore Havelis through art, poetry and historical narratives	5,000 sqft	6 weeks
			Archeology Center and Museum of Narratives.	18,000 sqft	9 weeks
			Re-imagining Girja Chowk, Lahore Cantt	10,000 sqft	5 weeks
3	University Of Lahore	3	Disaster Resilient Architecture	6-7 people unit	2 weeks
			Higher Secondary School Design	5.7 acre	8 weeks
			Office Design (Interior & Exterior)	2 kanal	6 weeks
4	National College of Arts	3	Performative Assembly: Table-top Model	—	3 weeks
			Performative Assembly: Scale Assemble	—	5weeks
			Social and Environmental Sustainability	—	6 weeks
6th Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	3	Low-income community center	9,000 sqft	4 weeks
			Adaptive Reuse	9,000 sqft	6 weeks
			Mid Rise Building	18,000 sqft	6 weeks
2	Beaconhouse National University	4	Narrative Architecture - Mirpur City. through art, poetry and historical narratives	10,000 sqft	6 weeks
			Hand Drawing/ AI/ 3D Printed Based Design	—	6 weeks
			Carbon + (Azad Kashmir)	100,000 sqft	10 weeks
			Garden of Remembrance, Kashmiri memorial	30,000 sqft	6 weeks
3	University Of Lahore	1	General Hospital	200 beds	16 weeks
4	National College of Arts	1	Religious Complex	—	16 weeks

Figure 7: 4th year Design Studio Modules

4th Year					
7th Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	2	School Design	0.25 acre	8 weeks
			Urban Interface Design	0.5 acre	10 weeks
2	Beaconhouse National University	4	Creative Practitioners - CP	250 m radius	6 weeks
			Re-Narrating the city: Invisible Impulsion	Urban scale	6 weeks
			The Act of Making	Varies per idea	6 weeks
			Urban Mobility & Equity	Urban scale	6 weeks
3	University Of Lahore	2	Disaster Resilient Architecture	6-7 people unit	2 weeks
			Midrise Housing Development: Energy Efficient	6 acres	14 weeks
4	National College of Arts	1	Religious Complex	—	14 weeks
8th Semester					
Sr#	Name of Institute	No. of Projects	Projects	Scale	Duration
1	Indus Valley School of Art & Architecture	1	Focused Urban Studio	1 acre	18 weeks
2	Beaconhouse National University	1	The Urban Construct-Un slumming, Retrofitting, Adaptive Reuse, Vacant Land utilization	1/2 km radius	16 weeks
3	University Of Lahore	1	CBD Scraper	5.6 acre	16 weeks
4	National College of Arts	2	Environmental Design	—	8 weeks
			Housing	—	7 weeks

5th year is thesis year in each Institute. In the 9th semester, students work on their research report and its corresponding design in the 10th semester.

Chapter 6 - RESULTS & FINDINGS

6.1 ARCASIA member Institutes

Most countries that face a conflict between academia and practice have over **75%** of faculty as permanent and **25%** as visiting faculty whereas some countries do not have a faculty of practice in place at all.

It is noted that countries that ***do not*** face the conflict between Academia and praxis and are fairly **satisfied** with their architecture programs have the following factors in common:

- i. On Average, the **Duration** of their Architectural Academic years is not more than **5 Years**.
- ii. There is a mandatory internship or apprenticeship in their degree programs
- iii. Their **studio hours** per day do not exceed **5.5 hours** (*median*).
- iv. They have a **balanced ratio** of permanent faculty and faculty of practice.
- v. They are integrating **UN SDG goals**^{*1} and **UIA charters**^{*2} in their program to tackle real time and future issues.^{[9][10]}
- vi. They frequently revise and amend their **curriculum** to make their program more relevant to the local and global market and industry needs.
- vii. They have concurrent **“Practice as research”** departments for contemporary issues which complement the design studios.^[7]
- viii. Their programs are student centered and have a sense of ***participatory design*** with community.^[11]
- ix. They allow their students to explore multiple faculties in the form of electives which promotes lateral and critical thinking.

6.2 Study of Architectural Design Studio Modules in Pakistan

We studied and compared studio modules of 3 out of 31 universities in Pakistan offering a B. Arch program. We analyzed all of the projects given to students were much larger than actually found in the market. We specifically focused on the nature of the project, its scale and the duration to complete the project.

Figure 8: Project Area Comparison

Name of university	IVS	BNU	UOL
Minimum Project Area	10 ft rad.	1,000 sqft	2 person pod
Maximum Project Area	1 acre	2.29 acre	6 acre

The Scales of the projects of most universities with the exception of IVS seem to be too big for students to grasp important details.

^{*1}United Nations Sustainable Development Goals

^{*2}International Union of Architects

Chapter 7 – PROPOSED SOLUTIONS

We have proposed a few solutions that could possibly resolve the conflict between Academia and Praxis for the overall enhancement of the architectural fraternity in Pakistan. They are discussed below.

Figure 9: Proposed Solutions



7.1 Breaking the Isolation & Bridging the gap

Since we have analyzed the isolation of all the universities within themselves and with the Praxis, it has become evident that the first step towards breaking this isolation is to create Collaborative Studios, combine faculty training programs, joint workshops and conferences, discussion on all aspects of curriculum including scale of projects, complexities of design, research-based projects, etc. ^[8]

With the help of all universities offering Architectural Education, we are creating ATS (Architectural talent show) which will be a festival of Architectural activities by the young architects and students. It will be the first of its kind in Pakistan and close to what a student body is in most countries.

Similarly, a lot more initiatives can take shape. Communities like IAP will be an active player in providing platforms for beneficial disruptions in the field of architectural education. It can create collaborations and dialogues between all sectors which can eventually implement the proposed solutions to diminish the gap between Academia and Practice.

7.2 Duration of the Degree Program

We learnt that it was not only the students but the teachers who felt the need to reduce the hours of the on-campus studio and the duration of the full-time degree in order to gain real time field experience in the market and industry. This would also boost the income for working students and teachers and create good balance between academics and practice.

7.3 Scale of the Projects

After a series of discussions and hundreds of studio classes taught over the past 25 years, it was a recurring observation that the scale of the projects introduced in studio classes need to be reduced for better learning and understanding of the students. Often, details and basic concepts in larger scale projects are missed.

7.4 Faculty of Practice

Introducing a faculty of practice regardless of whether the duration of the program is reduced or not is still a good idea. Having a **1:1 ratio of permanent faculty and faculty of practice** can make the programs more inclusive. The practicing architects forming the faculty will have real time problems to share with their students. This can be a hands-on approach in teaching without changing much in the existing system of education. ^[6]

7.5 Revision of curriculum with global affiliations in modules

Present and future architects are needed to tackle Rapid urbanization, infrastructure development due to population growth. Urban Renewal or redevelopment is a fairly new but challenging segment within Architecture due to climate change. They should also be prepared for sustainable and innovative architectural solutions and this can only happen if professors of practice impart their wisdom and hands-on experience to the students of architecture.

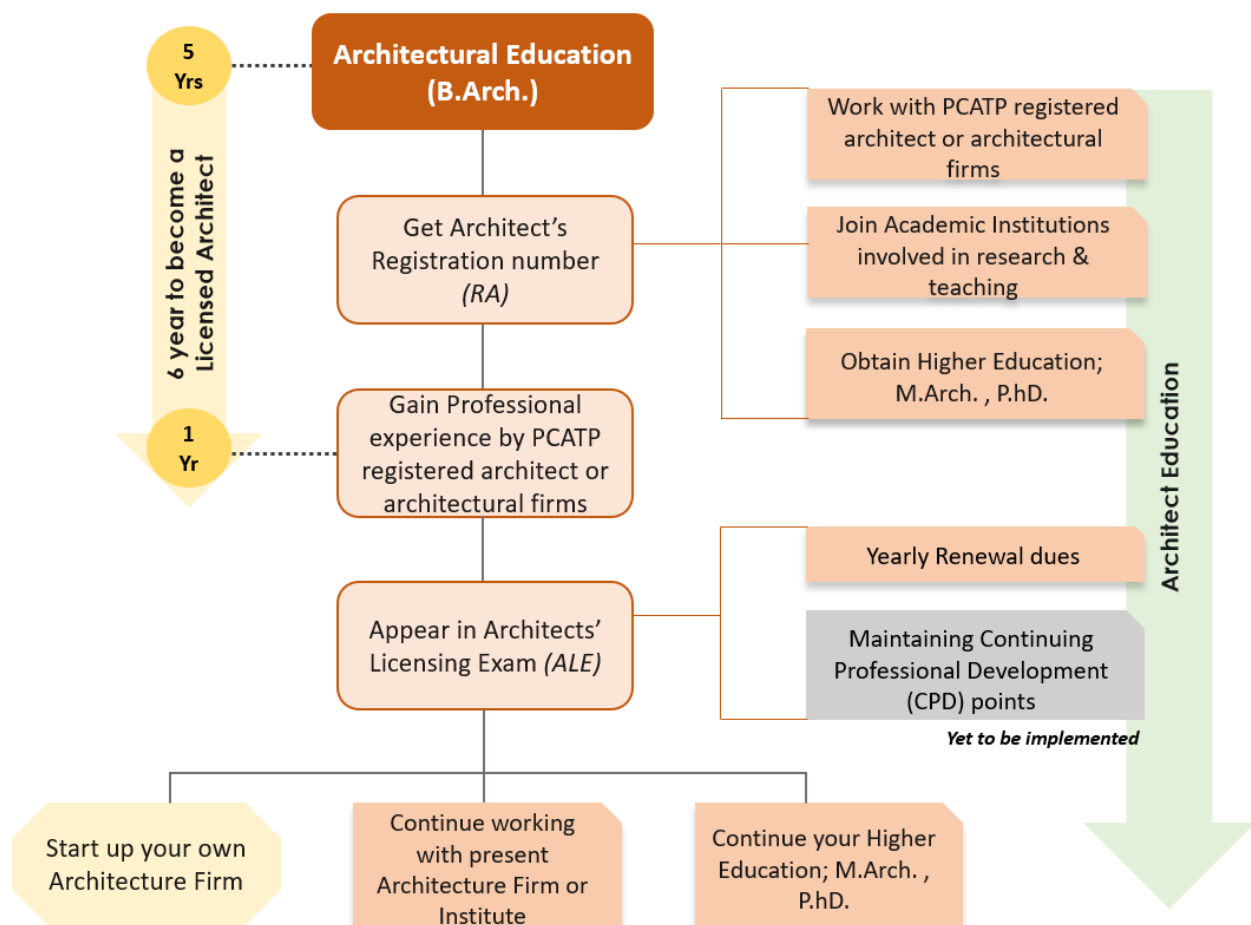
There should be a constant revision of curriculum and integration of UN SDGs in each module to tackle on-going and future issues. Similarly, other global architectural organizations' charters can be considered in each module. This can also prove helpful in reducing duration of program and granting licenses to students soon after graduating. As they have already gained knowledge and experience during the degree program.

Chapter 8 – DISCUSSION

8.1 Creating a disruption in the Architectural Education of Pakistan

Challenging conventions in a system of education may seem like a disruption to those who disagree with change in Pakistan. We have 31 universities in the country offering a bachelor or Architecture program. All of which are 5 years long. In addition, students must gain 1 years' experience at a licensed architectural firm before they can apply for a license to practice independently. In all, it takes **6 years** of formal education and processes for a student to be able to practice as a licensed architect. The number of offices in Pakistan is not enough to offer internship or apprenticeship opportunities during these 6 years to all active students. This is the reason; students lack practical knowledge by the time they graduate. This issue can be solved by incorporating a faculty of practice into the program so that the practicing architects can integrate the students in their real time projects exposing them to practical knowledge. If things remain unchanged, it demotes the growth of entrepreneurs or architects willing to establish licensed architectural practices. Of all the things that have measure, time is the only one we cannot grasp. I believe dragging something can be highly unproductive and a waste of a person's precious time. Studies have shown that shorter hours of work can increase productivity. ^[5]

Figure 10: Architect's Journey



8.2 Predictive Analysis

After our research and airing out our concerns, it was somewhat possible to predict what could happen after the conflict is resolved and what opportunities it can bring forth. The resolution of this conflict may lead to the following:

Figure 11: Predictive Analysis



The consequences of reducing program duration may or may not affect a private university's revenue. There are possibilities that by reducing the number of years in their program, they are increasing their revenue. Smaller degree programs may attract more students into the program. This also creates an opportunity for universities to create specializations within their department of architecture and follow the 3+2 format in which the number of overall academic years aren't reduced but are divided into 2 components i.e B. Arch. and M. Arch.

CONCLUSION

Clashes in systems of education are caused when it is no longer serving a purpose to the student or a society. The architectural education in Pakistan has reached a point where it is not corresponding with the needs of our time.

A conflict has been created between the architectural academia and practice over the years. This came about because academia and practice have both been working in isolation. Academia and Practice have their strengths and weaknesses. However, after our research, we have found that that Academia is the main reason for this conflict. The academia's strength lies in preparing the students for the future but only in theory. The Praxis weakness is the inability to apply theories explored in the university because practicing architects have to conform to bylaws, budget or time restraints. Architecture is an applied science and cannot be seen in isolation in education.[It constantly needs to be under the aegis of practical knowledge provided by practicing architects.

Attention to detail is often overlooked by students in large scale studio projects. Students need to be given projects in scales that are more relevant to the market or industry's needs so that the moment they graduate, they seamlessly integrate into the architectural practice. This will also make them be experts in detailing.

To address these conflicts, it is important for architectural education programs to evolve and adapt to the changing needs of the profession. Collaboration between academic institutions and practicing architects, the integration of practical experiences into curricula, and ongoing professional development opportunities can help bridge the gap between architectural education and practice. Additionally, industry organizations, regulatory bodies, and professional associations can play a role in fostering a stronger connection between education and practice through guidelines, standards, and continuous dialogue.

As an educationist and a practicing architect, it became my responsibility to identify the gaps in education and practice and fill it to create future ready architects who are capable to combat climate change. Change is the only constant; we must learn to adapt.

Acknowledgements:

This Paper could not have been possible without the innumerable discussions with our respected peers, students and colleagues. We appreciate their time and input for this paper. We also acknowledge Assistant Director P & D, Ms. Fizza Iqbal and Architect Bakhtwar Shakeel for helping us shape the paper and making it legible to all.

References:

- 1 - Griffin, A (2019), *"The Rise of Academic Architectural Education: The origins and enduring influence of the Académie d'Architecture (Routledge Research in Architectural History)"*, Routledge; 1st edition, 1-10.
 - 2- <https://www.moe.gov.sg/news/speeches/20180928-opening-address-by-mr-ong-ye-kung-minister-for-education-at-the-schools-work-plan-seminar>
 - 3- <https://data.who.int/countries/586>
 - 4- <https://www.hec.gov.pk/english/services/universities/cr/Pages/default.aspx>
 - 5- Pencavel, J H (2015), *"The Productivity of Working Hours"*, Economic Journal 125(589): 2052-2076.
 - 6- Schön, D.A. *The Reflective Practitioner*; Routledge: London, UK, 2017.
 - 7- Nelson, R, (2013), *"Practice as Research in the Arts: Principles, Protocols, Pedagogies, and Resistances"* Palgrave Macmillan, 1-20.
 - 8- Michael Eraut, 1994, *"Developing Professional Knowledge And Competence"*, Routledge London first edition, 1-30.
 - 9- Thomsen, M R, Marie, Nicole, 2020, *"Architecture for the UN sustainable development goals, a map of global efforts"*, A2023CPH CITA Centre for Information, Technology and Architecture, Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation.
 - 10- Ángela Amorós Molina, Daniel Helldén, Tobias Alfvén, Maria Niemi, Karin Leander, Helena Nordenstedt, Carita Rehn, Rawlance Ndejjo, Rhoda Wanyenze & Olivia Biermann (2023) *Integrating the United Nations sustainable development goals into higher education globally: a scoping review*, *Global Health Action*, 16:1
 - 11- Luck, R. Participatory design in architectural practice: Changing practices in future making in uncertain times. *Des. Stud.* 2018, 1-20.
- Figure 0: <https://academiainsider.com/typical-graduate-student-age-data-for-average-age/>