SHIFTING URBAN DESIGN PEDAGOGY: REFLECTION ON OPPORTUNITIES IN AN URBAN DESIGN STUDIO DURING THE COVID-19 PANDEMIC

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ABSTRACT

How does one teach a subject that requires extensive site interaction with people and public places where a pandemic is rampant? The challenge is two-fold; with studios aiming to achieve intended design outcomes essential to developing students' ability to tackle complex design problems there exists a real fear for health and safety. Though the verdict on efficacy of online learning as part of urban design pedagogy is still pending, this paper will present the challenges and opportunities in pedagogical approaches and problem solving while portraying a holistic analytical picture of the undergraduate urban design studio.

The outbreak of COVID 19 pandemic in March of 2019, forced all tiers of education to re-evaluate its studio methodology within a matter of weeks. Architecture and urban planning schools worldwide had to redesign a centuries old studio model that relied exclusively on face-to-face interactions to develop a culture of discussions and exchange of ideas. Several reactions and responses to address this challenge are in progress, amidst uncertainty and fluidity, towards the teaching and implementations of urban design.

This paper is a documentation and analysis of an urban design studio at an undergraduate level that adopted the online mode of learning in 2020. There is discussion on content formulation, teaching methodology and student outputs to encompass the challenges and opportunities arising from teaching the urban studio online. To achieve the goal urban design studio and urban design theory courses were analysed in terms of student engagement and satisfaction viz a viz online teaching. The hybrid mode of teaching that maintains a balance between face to face and online learning may be a more effective pedagogy in future.

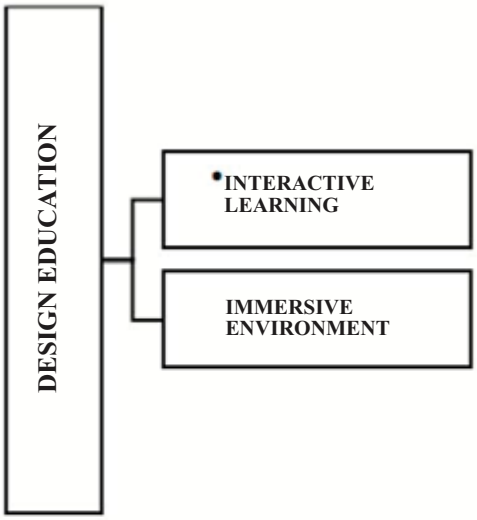
Keywords: Online Teaching, Hybrid Teaching Asaptability, Urban Design, Pandemic.

INTRODUCTION

With more than 4.7 million deaths and 230 million cases reported daily (BBC, 2021), COVID 19 disrupted the normalcy of life globally. The pandemic changed the socio-economic, political, and cultural landscapes of the world, impacts of which will remain for years to come. The impact on the education sector was colossal and possibly irreversible. Across the globe, students were asked to leave campuses, lockdowns were imposed and within weeks all teaching activity was shifted online. In Pakistan, where economic disparities are high and access to internet is often erratic, this meant walking into an unknown territory for both, the instructors, and the students. Circumstances attacked the core of design education, the design studio; the heart of the design education culture vanished.

Design education revolves around interactive learning in an immersive environment of the studio space Table1. The interactive aspect of learning exists on two primary levels, between student and instructor and among students or peer learning.

Table-1: Core of Design Education.



In the past, design schools endeavoured to create experience-oriented learning environments, the core of which remained the studio, a space where ideas are nurtured, and innovation is encouraged; where students augment their design development while learning through direct and indirect means, spontaneous discussions, extempore lectures, presentations, and debates.

Students make use of this space in countless improvisations, a microcosm of the profession. Design pedagogy in the 20th and 21st century witnessed experimentation with new educational theories, amongst them; Checkering's Theory of Student Development**,** (Chickering and Reisser, 1993)**,** Bandura's Social Learning Theory (Bandura, 1971) and constructivist theories. Along this journey, numerous study models of problem-based learning, learning by doing and learner centered learning been developed.

In this scenario, design pedagogy has taken an interdisciplinary stance as far as its philosophical and practical moorings are concerned. Socio psychological theories have specially resonated deeply with design academia in the past two decades.

Much before the pandemic, the digital revolution created great opportunities for experimentation in design education. The idea that of the unlimited nature of the internet and its possibilities, to educate and train a vast number of human beings without leaving their homes, was already being experimented with across disciplines. (Yamaguchi and Shiheyuki, 2008). In many design studios across the globe, virtual studios were being experimented with, especially in cross continental collaborative studios. (Bradford, et. al., 2000). Design students enhanced their skills through educational platforms like MOOCS. The

Figure-1: Learner Centred Learning.

cognitive and design thinking development, however, remained the forte of a design studio with its very distinct culture of physical interaction, communication, and exchange.

Urban Design Pedagogy

The term urban design was coined in a conference in 1956 at Harvard University but urban design was being practiced centuries earlier. Study of literature reveals that urban design has been understood and practiced in the three domains: design aesthetic social problems and place making concerns (Lang, 2005). Urban design encompasses many fields that have repercussions for public realm like urban planning, landscape design, civil and infra-structure engineering. Moreover, as a process, it is far more complex than mere design of the material environment. It is encompassing personal to political ideologies, value sets, politics, propaganda, symbols, lore and myths, history, memory, representation, pleasure, life patterns and ecology, etc. It is often a convoluted process shaped by political, social, and economic dynamics. In essence, this field and consequently its pedagogy is multi-disciplinary and collaborative (Carmona et. al., 2006, McGlynn 1993 Tomas). (Carmona, M. et. al., 2006, McGlynn, 1993, Lukovich, 2017*).* Broadly speaking, the focus of urban design pedagogy lies on identification and understanding of opportunities and challenges a city offers. After this understanding is acquired a tangible intervention to improve the social or urban condition is attempted. Urban scholars like Scott Brown (1990) emphasize the practice of "philosophy of action" for urban designers. Essentially urban design as a pedagogical domain works very closely with and for the society and its problems in real time (Scott , 1990). Field research is an essential part of creating meaningful urban design. Essentially both content

Table-2: Elements of Asynchronous Teaching.

ASYNCHRONOUS TEACHING	
READ	LISTEN PODCAST
VIDEO BASED INSTRUCTION	TAKE NOTES
PRACTISE AND REVIEW	ONLINE DISCUSSIONS
DOCUMENT LEARNING	RESEARCH & REPORT
VIDEO BASED INSTRUCTION	

and methodology cannot be successfully taught without immersing into the urban milieu and glean a deeper understanding of the complexities attached to the urban conundrum.

Considering the limitations of a pandemic, urban design education becomes much more complex. Embodied cognition theory emphasizes that learning occurs through an interplay of body (constituting the physical body and the senses) and mind. So even in settings in which online teaching predominates, there is often a need to look for ways to integrate some sort of physical (inter)action to significantly enhance learning (Kosmas, 2019). Whether the world shifted to online teaching as a necessity or wholeheartedly, this mode of learning is here to stay. The literature coming out on the success of this mode also points towards certain limitations of online learning especially in the scenario of urban design pedagogy and education scenarios in the developing world.

It has been researched that the theoretical content of urban design pedagogy can quite comprehensively be shifted online or asynchronous mode Table 2.

Students benefit from listening and re-listening the content in their chosen time and space. It has been noted that evaluations and assessments are conducted relatively smoothly for the theory content of the urban design pedagogy. In fact, the structure of content and teaching schedules become more disciplined and streamlined. (Remon, 2020).

The efficacy of urban design studio teaching on a pragmatic/practical level, on the other hand, requires further

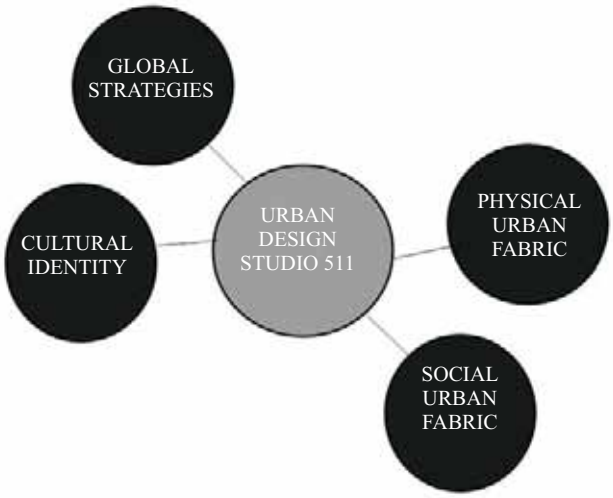


Figure-2: Areas of Focus.

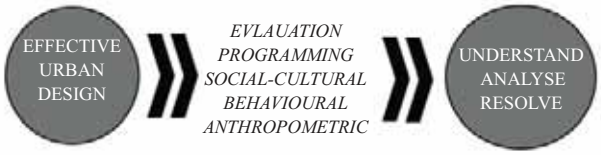


Figure-3: Urban Studio Teaching Strategies.

research. Purely from a pedagogical point of view, studies have already pointed out that lack of social support in the form of discussions/verbal interactions and the amount of stress students are confronted with seriously impact their well-being. Consequently, overall quality of education declines. (Natvig, 2003).

As supported by the literature reviewed so far, the essence of urban design lies in dealing with people and their conditions. Its core learning in a studio cannot be entirely divorced from its main subject of life as is happening in real time and space. Otherwise, urban design studios may promote a culture of ignoring the complex urban environments and designing in a vacuum according to a hyper idealistic brief. (Cuthbert, 2006). There are many challenges to teaching urban design in a virtual environment, the greatest being access to the stakeholders whose opinions, aspirations and hopes must be translated in a meaningful urban intervention. Thus, participatory, community driven design methods cannot be practiced in its true spirit in a virtual world. Emerging research in the post pandemic education debate points towards a hybrid methodology for conducting the urban studio.

Methodology

This paper adds to the nascent body of knowledge about experimentation in teaching design studios during the

COVID 19 pandemic. It is a documentation of the urban studio taught at COMSATS University Islamabad in 2020. The paper elaborates content formulation and studio methodology by discussing studio exercises designed to achieve specific studio outcomes in the domain of urban design. Moreover, student feedback from urban design studio and urban design theory was collected during the semester. The data gathered was analysed to assess student satisfaction and engagement level.

Studio 511

In the past, urban design teaching and practice has focused on the design of urban spaces as being the modulation of the physical aspects of the fabric while the complex social processes that contribute to its making have not been included. More recently, a few practitioners and educationists have voiced concern about this and suggested instead an alternative path where the design effort is based on field-intensive mapping exercises to understand the ground reality.

Based on this background, Urban Design Studio 511 (Table 3) aims to employ a critical mindset that could question given urban conditions and display awareness that urban space is also politically and economically intense (Akpinar, et al., 2016).

Additionally, the studio was derived from the notion that urban design pedagogy must step back from only proposing global strategies and instead construct a model that includes cultural identity of a place and its people (Crysler, 1995).

Basic methods of understanding, analysing, and resolving urban environments including, evaluation, programming, socio-cultural, behavioural, and anthropometric influences were introduced throughout the course of the semester (Figure 3). The studio that primarily consists of studio work was redesigned keeping in mind an online mode of teaching (Table 3). This redesign was aimed at avoiding the most common challenges faced in the online studio, maintaining motivation and interest of the student, and tackling unforeseen circumstances that occurred in the at-home learning scenario.

Breaking down of learning outcomes into three smaller tasks instead of working on one extensive urban project throughout the semester was an effective way to keep students interested.

It gave them the chance to cover for any loss in course work due to an unforeseen situation that disrupted their learning space. Any student who was unable to perform in one task could cover it in the next (Table 4). Additionally, each task introduced a new perspective of urban design and along with it a new site, this provided a variety that was helped maintain motivation amongst the students. Since urban design work requires study across and along multiple layers, tasks were broken down into individual and group work; this eased general work stress and encouraged student interactions that helped in maintaining positive and productive attitude along with exchange of ideas and learning.

Streamlining all instructions beforehand with detailed guidelines, objectives, parameters, and deliverables and providing this information to the students at the beginning of the project aided greatly in helping student move on in their work, especially in situations where the students felt they were facing a mental block or were working in an isolated environment.

Each task focused on one or more of the learning outcomes of the course; and was conducted individually and/or in groups depending on the scope of the work. Recognizing its multidisciplinary nature, the urban design studio encompassed lectures to reflect the analysis and understanding of cultural, political, and economical interaction that eventually shapes and reshape the city over time.

The comfort in online communication that had developed by this time across disciplines and audiences made

Table-3: Studio Design.

MULTIPLE PROJECTS	DIGITAL & PHYSICAL	INDIVIDUAL & GROUP WORK	STREAMLINED INSTRUCTIONS & PARAMTERS
Varying perpective	Access to information	Ease in workload	Maintain focus on objectives
Maintaining Interest	Maintain depth of study	Ideas' Exchange	Aide in isloated learning environments
Chance to cover up	Representation	Interaction for Motivation	

Table-4: Comparison of Single Studio and Multiple Studio Task Specifically for Online Learning Enviroments

SINGLE STUDIO TASK	MULTIPLE STUDIO TASK
Large scope of work	Seperated grading
Accumulative grading	Margin to recover from work lag
Same working group may cause monotony	Change in working groups,variety of interaction
Consistent Performance	Different context, challenge and scenarios

Figure-4: Areas of Exploration.

accessibility to experienced resources very manageable. The first two tasks of the studio aimed to achieve two major parts of urban design learning: reading the city and mapping the city. The latter half of the studio focused on urban interventions and architecture in the city, with increased complexity of study, analysis, and an additional design intervention challenge (Figure 4).

Studio Task 01 – Reading the City

The first studio task was an introductory exercise (Table 6) in identifying and defining urban elements and reading the city. This is the first time in this undergraduate program that the students work on an extensive and multi layered scale which may be intimidating, therefore students are taken to an urban setting, as a group, they are consciously made aware of all the elements and layers that exist in these settings and the visits are repeated to formalize their understanding until they are able to grasp and identify aspects and elements by themselves. However, in the online learning scenario, group travel was not possible therefore, the task was designed at a smaller scale and parameters of observation and study were laid out (Table 5). The students were asked to work on the neighbourhood scale; within a 1 km radius of their own residence. This was an area which they were already familiar with and could easily navigate (Figure 5).

The study consisted of two parts, identification, and preliminary analysis. An introductory study list to aide in this process of observation and analysis was provided. Google maps along with other GPS services, online surveys and local authority data deemed most useful as a support to this observation and study especially because providers of information like local government offices were closed and some areas had strict lockdown restrictions limiting even neighbourhood gathering.

Studio Task 02 – Mapping the City

The second task of the semester aimed to develop in-depth identification, understanding, mapping and analysis of urban scenarios. The basic aspects of study were like the first project however, included further aspects and complexity of the study increased in terms of depth of study, accuracy and detail of mapping, documentation of the area and maturity of analysis (Table 7).

Table-5: Revised Studio Project Parameters for Online Studio.

IN-STUDIO TASK PAMETERSERS	REDEFINED TASK PARAMETERS
Site selection based on overall city concerns	Site selection limited to proximity of street/block
Site Visit, Study and Survey	Reduced parameters of study
Group work to cover larger areas thoroughly	Use of online mapping platforms
Interviews and interactions with people	Local authority websites for data and statistics
Municipal office meetings	

As by this time the lockdown restrictions had eased and therefore, the site study was to be conducted in groups to ease the workload on any individual student, a list of sites was provided each covering a 2km radius, each group chose their site from the list. The project included three main parts, each: mapping, analysis, and urban guidelines.

A guide with parameters and sub parameters was provided to the students (Table 7) that broadly outlined the aspects that were to be studied. This guide was not as detailed as the one from the first task as the student is expected to review and make their own contributions to the study parameters based on lessons learnt from the previous project and supportive resources in the course. The students took a walk around the selected area to observe, hear, smell, and experience the setting of the area to observe and document the cultural, social, and physical context of city life.

Learning outcomes were achieved successfully with respect to developing an understanding of the urban domain and its scale, mapping, and documentation of urban settings. Students produced analytical diagrams, sections, and sketches that covered the quantitative aspects including services and infrastructure, links and connections, land use, demographics, and qualitative aspects including social and cultural context, environmental aspect, urban morphology, visual quality, and sense of place. The work produced also displayed students' ability to identify urban elements and conduct preliminary level analysis of urban scenarios.

Studio Task 03 – Urban Interventions

The third studio task dealt with the areas adjacent to ravines in Islamabad. The ravines of Islamabad cover an area of approximately 8.8 square kilometre (3.4 sq. mi). However, negligence and lack of municipal control and planning these

Table-6: Structured Studio Instruction.

URBAN DESIGN ASPECT	IDENTIFICATION AND READING	PRELIMINARY ANALYSIS	METHODOLOGY
Urban Morphology	How has the area developed over the year?	Comments and review on the growth pattern	Google Maps Interviews
Open Area and Landscape	Parks, vegetation, tree plantations, ravines, urban voids. Categorization of elements, identification on plan and photographic and sketched documentation	How has the vegatation pattern effected the microclimate? What role do the open areas play in the overall enviroment? Is there a plantation plan?	Site Observation and Google Maps
Built and Voids	Developed a Nolli map identifying all built areas in white and unbuilt in black so that the unbuilt is highlighted	What is the nature of the unbuilt area? What is ratio of built to unbuilt, how has it effected life in the urban domain?	Google Maps
Land and Voids	Identify building typologies. Mixed use, Corporate, Educational, Residential, Commercial, Industrial etc.	Is there diversity in land use in the area? What effect has the lack of, or the existence of diversity had on the urban enviroment?	Site Observation and Google Maps
Architecture	Identify building volumes, heights, form and architecture language through site observation and photographic documentation.	Is the architecture design of the area designed or organic? How has the arechitecture language of the built forms effected visual quality of the area?	Site Observation
Pedestrian Circulation	Categorize and identify types of pedestrian paths. Conducts a ped shed analysis, identify basic amenities that are within 1 and 2 radii.	Is the area pedestrian friendly? Are pedestrian routes designed or developed by users? Does the pedestrain circulation include universal accessibility? What amenities are at a walking distance?	Site Observation and Google Maps
Landmarks	Identify any local and/or national landmarks in the site area	Do local landmarks help in navigation and wayfinding for the area? If yes, how?	Site Observation and Google Maps

ravines have become and continue to be a complication for residents and a hazard to the environment. The ravines that lay in the heart of the concept of integration of natural landscape into the grid of the plan has been left in the background and deemed as unwanted or discarded spaces even though these ravines provide numerous environmental benefits including essential rainwater drainage and were once centres of biodiversity and thriving microclimates for local flora and fauna.

As per the by-laws of local government, "No building plans shall be approved on open nallahs, water courses, public sewers and the like." These has been done because of construction hazards due to soil erosion, flooding, exposure, and vulnerability towards seismic activity. Currently, the ravines face issues involving illegal settlements, damage to local flora and fauna, rainwater drain blockages and massive urban waste dumping.

For this task, students worked in groups of four to select one residential sector of Islamabad with a ravine passing through it. Each group conducted a broad study of the ravine across the sector and selected a 1.5 km portion of the ravine to develop a revitalization plan. Proposals could include but were not limited to, an urban vision for the ravine and possibility of implementation of this idea on other ravines around the city. The proposals presented resolutions for waste management, landscape design, public spaces, pedestrian movement and revival of local flora and fauna.

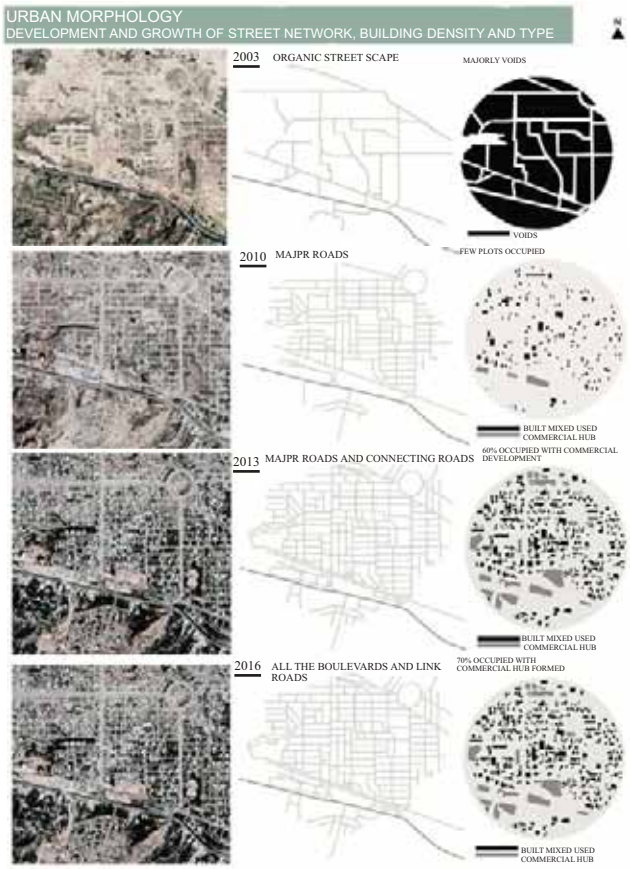


Figure-3: Data Collection and Analysis using Digital Applications Student Work N- Nimra Ashfaq.

Table-7: Parameters Provided for Aide in Analysis for Task 02.

URBAN PARAMETERS	SUB PARAMETRS
Urban Morphology	History Evolution Growth
Connectivity and Connections	Vehicular (designed and desired) Pedestrian (designed and desired) Road Typologies Parking Areas (designed and desired)
Form and Visual Quality	Streetscape Heights and Massing Skyline Urban Art Signage Architecutre Language
Land-Use and Services Infrastructure	Building Typologies
Open Space and Landscape	Parks and playgrounds Unbuilt Open Space (public owned) Landscape and Plantation Built: Void
Context and Sense of Place	Loca land national landmarks Social Nodes
People, Culture and Environment	Lifestyle/culture Users/ Stakeholders Health and Ethnic/Religious Groups Urban Transport Climate Sensitivity Garbage Disposal Demographics

Parameters of urban research and analysis included but not limited to, urban morphology, connectivity and connections, form and visual quality, land-use and services infrastructure, open spaces and landscape, context and sense of place, people, culture, and environment. Throughout the course of the semester, the studio was supported by carefully selected recommended reading material that included, urban theories, literature on debates and controversies in thoughts about the future of cities and the cities of the future and innovations and ideas on sustainability in urban design. The analysis parameters aimed to be a guiding structure for conducting research and students were given the opportunity to add parameters that they deemed suitable considering their specific research.

With the increase in automobile usage relationship of the pedestrian user to the city weakened and pedestrian oriented design diminished. The ravines are an opportunity for the revival of public spaces and pedestrian movement. These ravines run across every sector and can be developed into pedestrian linkages across the sectors while also providing revenue, agricultural and urban farming opportunities for the locals. The challenge we face today is not a return to past but moving forward with lessons learnt from today's context with an evolved vocabulary of the city, i.e., bringing the city back on pedestrian scale and reviving its public life simultaneously.

The scale of the project was bigger with a higher complexity level. The students employed both digital information of the site and onsite exploration of the ravines to come up with meaningful interventions to rethink the use of the land adjacent to ravines. Previously given studio tasks had trained them to gather data efficiently. The challenge was made into a design intervention. This was important for them to learn the aspirations of the communities living near the Ravines. Moreover, they carefully investigated the informal ways these areas were being used by different community groups for varied uses. The major takeaway was that the program and intervention could not be an alien idea implanted onto the site. Both program and design intervention had to arise organically from site surveys and interviews with the people. The students learned that on urban scale the intervention sometimes is very small in scale but has a major impact.

Studio Teaching Methodology

Maintaining learning outcomes during on campus teaching restrictions and city-wide accessibility restrictions was a big challenge for the studio. This studio is the last step before the thesis year and therefore not learning the full spectrum of the contents could result in serious gaps in the expected skills and understanding of an undergraduate student.

A revised studio methodology for online teaching mode was develop that was primarily based on two main aspects breaking down of studio tasks and group work. Both aspects aided in internalising certain concepts in a step-by-step fashion before they attempt a design intervention in the final project and secondly, The studio used Microsoft MS Teams as the main platform for instruction. All relevant class material was made accessible to students beforehand. The studio instructors planned the course work thoroughly as the online methodology relied heavily on organisation of work and schedules of tasks. During studio sessions, tasks were introduced, each instructor took their individual time to discuss the topic and present points to ponder upon.

This was followed by a discussion session was questions and debate. Online platforms that provide whiteboards and note taking were extremely useful for live improvised discussions (Figure 6).

The class was divided into groups and was asked to create their own timelines and schedules. The group tasking was established for every member of the group with consultation and submitted to the studio team. Half of the class went on site surveys while half the class discussed their site findings in the online studio with the teachers. All studio discussions and lectures were recorded for access later. Grading and evaluations were done regularly after each group discussion to maintain the relevance of the studio discussions. All grades were uploaded periodically on the university marks portal for students. Grading criteria were explained before giving each task to the students. The studio was run in a systematic preplanned manner to limit disturbance in schedules and focus remained on the learning outcomes.

Analysis

To compare and analyse the true state of online studio pedagogy from the students' perspective, a survey was conducted in the middle of the semester Table 8. The survey aimed to find out information on psychological state of thestudent, online methodology, studio content and studio culture specifically in an online environment. The survey was given out to students of the same semester who were being taught urban design studio and urban design theory course in an online environment.

On the topic of psychological state of student, when asked about how they felt during the past week, 82% said they were stressed with respect to the design studio in comparison to only 29% who said they felt stressed with respect to the design theory course (Table 7). 54% students were comfortable in doing their schoolwork remotely in the design theory course however it was only 35% who felt the same for the design studio even though overall 83% students found the chosen learning platform easy to use.

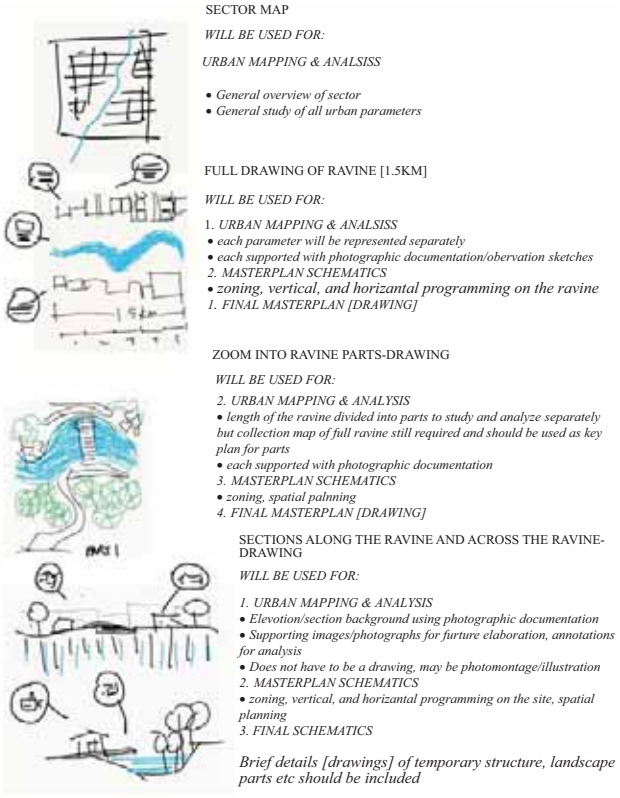


Figure-6: Digital Instructions using online whiteboards.

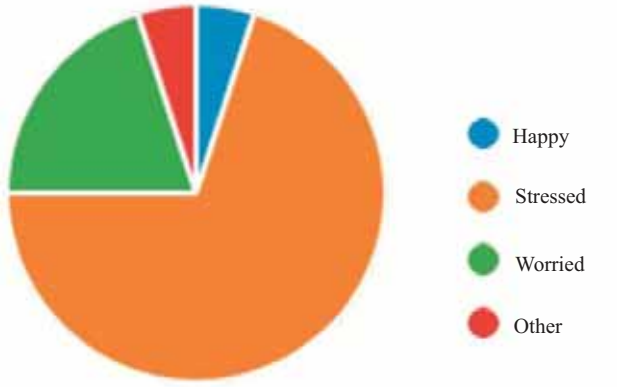


Figure-7: During the Past Week, how have you Felt?

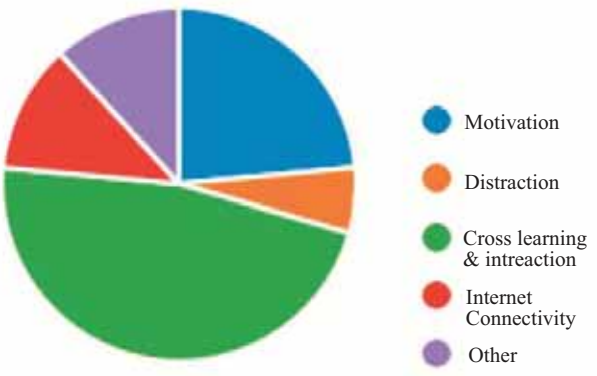


Figure-8: What is the biggest challenge you are curently facingwhile taking the design studio

On the aspect of online pedagogy, the main challenge being faced by the students in the design theory was internet connectivity and maintaining a regular schedule for themselves (33% respectively), however, for the design studio 47% students said it was the lack of cross learning and interaction followed by motivation (23.5%) Figure 8. Though the supporting material including lectures talks and interactive sessions were deemed relevant and useful by 94% students in the studio however it may be the aspect of social interaction and face to face cross learning that 65% students felt that the studio course would have been more effective if it was held in person Figure 9.

Studio culture remained an important element of the online teaching pedagogy, 82% students agreed that instructors made serious efforts in maintaining a culture of interaction, discussion, facilitation, and an overall collegial environment aimed to develop an interest in the topic. 100% students agreed that the instructors were prepared for the mode of teaching and that the interpretation of course outline into content was made to keep interest and motivation alive even though 47% students felt that breaking up of studio projects into smaller tasks was an effective idea.

Figure-9: Instructions for projects clear and understandable.?

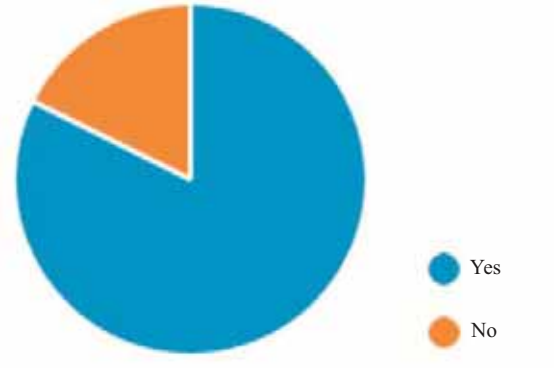


Figure-10: Are Projects and Deliverables in Line with the Online Studio.

Discussion and Conclusions

The experience of running an urban studio online had some high points and some low points. As far as the content design of the studio was concerned, its was planned achieve the outcomes of a normal on campus studio. This was ambitious because the content was extensive even for a physical studio. The students were already under stress from taking online classes and studios in the previous semester. This required a change in the teaching strategies. There were a lot of discussions and debates. The students were encouraged to simultaneously use chats and zoom meetings to somehow create a studio environment of peer learning. The students were given a week's break to recoup their energies before the start of new task. The outcome was at par with the on-campus studio. The online mode of teaching gave the students the freedom to interact with architects and experts from across the globe. On the other hand, though instructors and students were engaged in the studio for extended periods there remained a sense of unreality and detachment. The online meetings could not replace the face-to-face discussions. The internet freed but at the same time enslaved the class to the screen. The physical space dissolved and the new construct of a virtual reality devoid of tangible social contact took its toll on the students.

A review of student performance and overall motivation and assessment of student work at various stages and at the end of the course indicated that the online methodology worked successfully for high performing students who were often self-motivated and proactive and were able to maintain their academic standing However, otherwise average, or low performing students struggled greatly, decreasing their overall grades. Additionally, students were able to understand and perform group tasks better than individual tasks.

As seen from data analysis the students were more comfortable and responsive to studying theory online even though some had trouble regulating personal schedules. Certain aspects like pre-recorded lectures, availability and refinement of class content and material to the students and interaction with experts from other parts of the world that are vital advantages of the online studio may be retained and employed extensively, however, the physical studio has certain psychological support mechanisms and learning advantages that need to be retained. The hybrid studio may truly be the future, flexible in terms of accessibility of expertise and knowledge as well as adaptability and communication.

Table-8: Student Survey Results.

	URBAN DESIGN STUDIO	URBAN DESIGN THEORY
STUDENT SATISFACTION AND STRESS		
During the past few weeks, how have you felt?	42% Stressed 6% Happy 23% Worried 6% Other	29% Stressed 42% Happy 25% Worried 8% Other
During the past few weeks, how have you felt?	65% No 35% Yes	8% No 92% Yes
ONLINE METHODOLOGY		
What is the biggest challenge you are currently facing while taking the course online?	24% Motivation 6% Distractions 47% Cross learning and Interaction 12% Internet Connectivity 12% Maintaining regular schedule	33.5% Internet Connectivity 12.5% Motivation 17% Distractions 33% Maintaining regular schedule
Would you say you are learning more intensively via the online mode than would in face-to-face classes?	12% Yes 29% No 59% About the same	21% Yes 14% No 54% About the same
Is audio and visual communication during sessions satisfactory?	65% Yes 0% No 35% Not Alway	67% Yes 8% No 25% Not Alway
Do you feel online class sessions fully support and are essential to understand the recorded content?	-	37.5% Yes 0% No 62.5% Sometimes
Are projects/assignments/ deliverables coherent with online methodology?	82% Yes 18% No	82% Yes 18% No
COURSE CONTENT		
Is the course content useful and interesting?	100% Yes 0% No	100% Yes 0% No
Is course structure organized and well structured, with supportive material?	94% Yes 6% No	96% Yes 4% No
Are all instructors well prepared in terms of course content?	100% Yes 0% Only one out of three 0% Only two out of three 0% No, none of them	100% Yes 0% No
Have the instructors helped in developing an interest in the topic?	82% Yes 18% No Difference 0% No	87.5% Yes 12.5% No Difference 0% No
Are instructions for projects/assignments clear and understandable?	94% Yes 6% No Not Always	87.5% Yes 12.5% Not Always
Do instructors maintain a healthy class environment where participation is encouraged?	94% Yes 6% No	100% Yes 0% No
The studio was designed in multiple small tasks rather than one big project throughout the semester, is this a better methodology?	41% Yes 59% No	-

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