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# Status of Culture in Architectural Education: A Case Study of Architectural School in Mehran University, Jamshoro

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***Abstract-*** Architectural education and its relation to culture has deep roots in past as both of these entities hold a strong historical background. The connection between two is explored through this research to investigate the status of culture depicted in the curriculum; a basic medium of dissemination of knowledge in architectural schools in contemporary times. The conceptual framework identifies cultural sensitivity as a potential mean to assess the status of culture in architectural education through curriculum. The study involves quantitative methodology using a case study approach and an objectively selected sample from faculty and students. The conceptual framework of the research visualizes aspects of cultural sensitivity as values, learning and behavior that are translated into taught contents, architectural education and built environment respectively for the manifestation of culture. The conclusions depict that culture has adopted a modified definition in social terms and that culturally sensitive content is present in architectural curriculum generally spread over curriculum. Moreover, cultural sensitivity has been oversimplified in process, whereas the deliberation for the application of the term in curriculum can be focused. This study is significant for architectural academia and society as culture is translated to the society through curriculum-based model taught in architectural schools creating built environment. Therefore, the exploration in status of cultural aspects in the curricula of architectural schools has potential to create better understanding of architecture leading to a culturally sensitive approach in society.

***Keywords-*** Curriculum, Culture, Built Environment, Architectural Education, Cultural Sensitivity.

## I. INTRODUCTION

Architectural education and its relation to culture is the core idea of this research. Both terms, Architectural education and Culture are treated as entities for discussion here because of their distinct attributes that make them distinguished in a society. Architectural education is described as an entity with respect to having its distinct existence as a discipline. It is distinguished as an exclusive discipline having its distinct contents and methodologies as an educational discourse.

The first National Curriculum Revision Committee NCRC, which was formed in Pakistan to develop the curriculum for undergraduate level of architecture, acknowledges the fact that architecture is distinct from many other disciplines and each institution imparting architectural education in Pakistan has its own peculiar strength, circumstances and environments. [1]. Culture is described as an entity with respect to its distinct inclusive nature, which is composed of several attributes that differ for different societies. Culture is also defined as a collective programming of the mind, which is distinct for members of one category of people from another, thus distinguishes the categories. [2]. The dynamics of relationship in these two entities encompass several aspects that vary according to the context prevailing in a society for a specific time. Society plays a pivotal role in translating cultural aspects that are communicated through architectural education. The similarities and differences in several societies about cultural attributes and their understanding are gauged through cultural sensitivity. This signifies cultural sensitivity as a mean to communicate several societal attributes; architectural education being one of them. Moreover, the dissemination of architectural knowledge and culture also adopt the mean of cultural sensitivity. In contemporary times, architectural education is communicated through curriculum-based model; same being adopted for case study selected for this research. This model for architectural education has evolved in alignment of evolution of human society, according to the contextual requirements like industrialization, mass induct of students in architectural studies after industrialization, societal urge to have designed buildings for basic comfort and shelter other than state edifices and several others factors. The construct of

architectural education henceforth has also evolved to cater these changes in societies. Scholars have described that it involved mainly two modes of teaching to prepare architects; as apprenticeship and curriculum-based models, in addition to several other methods of teaching as drawing, painting, sculpture, training as war prisoners, etc. [3]. In its present form it includes theoretical and practical parts to disseminate knowledge through curriculum-based model in almost all parts of world.

## II. The Connection of Architectural Education and Culture

The role of architecture is to create spaces that meet the needs of users. Architecture of buildings is influenced by many factors such as behavioural, socio-cultural and physical, which affect the design, meaning and use of space to different individuals and group of people. [4]. Therefore, Architecture in its applied form is a response to the primary human needs for shelter and comfort and this response is derived from architectural education. Scholars have considered evolution of architecture, from mastery to discipline and then a profession, stating the core as a skill to design. Architectural education encompassing a wide and diversified range of knowledge areas in itself is composed of both art and science dealing with history and social cultural values. [5]. A seminal definition of architecture in history, is described as a science mastering many other disciplines including arts. The architect alone, combines firmness and utility with beauty. [6]. This discipline of education has been observed as an integral part of society in tangible and intangible form since historical times. Since the societies have also gone through the process of evolution, it is very likely for all educational disciplines to get effected by the process of evolution of society. This evolution of human society is not a short-term process. Six types of societies are categorized by sociologists and anthropologists according to the chronological sequence and the evolution process. These include foraging societies (primitive stone age), horticultural societies (10,000 to 12, 000 years ago), pastoral societies (10,000 years ago), agrarian societies (8,500 to 7,000 years ago), industrial societies (between 18$^{th}$ and 19$^{th}$ century), and postindustrial societies (beginning of twentieth century). [7]. The evolution of architectural education during these stages of human society evolution took place in very natural manner, as societal needs were the basic reasons of evolving new methods of training according to the available resources and context. This evolution is underpinned by contextual requirements for discipline of architecture, some of these are industrialization, mass induct of students in architectural studies after industrialization, leading a shift from apprenticeship to curriculum based model, and societal urge for designed shelters.

The dissemination of architectural education is a two-way process, which involves basically a student teacher connection as a mode of teaching process. This teaching process involves both practical and theoretical methods to disseminate knowledge. The mode of teaching architecture ever since its evolution has been changed from master- pupil method to apprenticeship leading it to currently adopted curriculum-based model. Different methodologies have been incorporated in the process of educating the architects to ascertain three components of firmness, beauty and utility as described by Vitruvius. Significant amongst these which contributed in evolution of architectural education includes apprenticeship and curriculum-based models. Both of these methods are dealt with diversified pedagogical patterns in different parts of the world owning particular history, beliefs, customs and thus cultures. This belongs to the holistic approach of defining architectural education:

*"The architect should be equipped with knowledge of many branches of study and varied kinds of learning, for it is by his judgment that all works by the other arts is put to test."* [8].

Training of architects is therefore, a complex exercise which takes into account multiple factors like contents, methods, and outcomes with a focus on responding to the core necessities of society both in tangible and intangible forms; togetherness of which both is reflected in the form of "culture".

Culture, generally has been defined in its anthropological as well as sociological sense as a complex whole, way of life and commonality in the behavior of society. Researchers have also narrated that It includes knowledge, belief, art, morals, laws, customs, education and other capabilities and habits acquired by man as a member of society for a specific period of time. [9-11]. Culture, therefore, is a variable of society, which has a tendency to change with time, and hence describes the characteristics of a society in a particular context. The attributes of culture include laws, customs, beliefs, food, language, dress and many others those differ in societies and vary according to the context of different societies. The recognition of these differences and similarities is the origination of idea of cultural sensitivity. Scholars have emphasized that the ability to sense these attributes of culture varies for different societies, which is referred as "cultural sensitivity". [12].

The variables associated with culture, present themselves as the gauge to assess cultural sensitivity in a society. Amongst these variables some are interrelated to each other while others are not. These similarities and differences are ultimately reflected in societal behavior and are communicated through several means. This interrelationship also varies in different societies according to the context, which reveals complex dynamics of cultural sensitivity.

For instance; there exist preferences for wearing a specific dress for having food at a particular time like breakfast or dinner, while in some other societies it is not a norm. On the other hand, many societies have commonalities in wearing office dress, Eid festival dress, and funeral dress. Likewise, many societies have adopted common understandable language as their national language while the same society also uses different languages in different geographical areas. Since the attributes of the term culture vary according to the context, the same applies for cultural sensitivity. Culture, therefore is a variable term, which varies with time according to the context, while cultural sensitivity is a mean to assess the varying attributes of culture. It is experienced through cultural variables like language, food, dressing, beliefs, customs, rituals, and festivals, and many more through changing time. Culture is therefore described as an expressed form of all variables, which ultimately construct its tangible and intangible parts. While customs, beliefs and values appear to be intangible parts of culture, built environment is one of the tangible parts, which reflects the architectural education. The process involved in educating the architects, including the contextual cultural concerns, underpins it. The available literature in this context has encompassed the architectural education in relation to the profession as well as to the built environment, that are well connected to architectural education. At the same time different societies around the world have experienced a variety of built environments depending upon individual cultural values. The integral parts of culture are tangible culture and intangible culture. UNESCO, refers tangible part of culture to artefacts that are produced maintained and transmitted through generations in a society. This also includes artistic creations, built heritage such as buildings and monuments that are invested with cultural significance in a society. While intangible culture refers to the practices, representations, expressions, knowledge, skills. It further includes instruments, objects, artefacts and cultural spaces associated herewith that are recognized as cultural heritage of communities, groups, or individuals in a society, for instance oral traditions, arts, local knowledge, traditional skills. [13]. While both tangible and intangible parts of culture are interrelated to each other, both need to be taken care of and are worth exploring. It is also considerable that the entity of culture, which includes both tangible and intangible parts in it, is reflected in society, which is a tangible part of culture. Therefore, this provides the basis of the concern that the intangible part of culture exists somewhere in the training process of architects and is thus reflected in tangible part like built environment. One the other hand this also leads to the concept of intangible part of culture as a larger one as compared to the tangible part. Culture is integrated so delicately in the whole process that its effective status is negligibly known. Therefore, there is a need to explore and investigate this effective status of culture through scientific investigation, in order to explore the attributes, which integrate culture and built environment keeping the architectural education as an interfacing ground.

This also signifies the question about effective presence of culture in architectural education, which is inculcated through curriculum. This question is underpinned on basis of the existing attributes of architectural education that constitute the process of educating the architects and ultimately affect the society. The basics of architectural education included in the process that appear to be same in all parts of the world. Architectural design through the methodology of drawing as a tool has been accepted as mandatory for architectural education. Allied areas of knowledge that are necessary to inculcate the required knowledge at a specific level enrich this architectural design. However, due to the vast elaboration of architectural education, the understood concept of culture in the existing form of curricula adopted in architectural schools has apparently diminished to an extent where it is likely to be overlooked. The focus of this research is to explore the effective status of culture, which is contributing in the development, and continuity of Architectural Education.

## III. Conceptual Framework: Cultural Sensitivity and Architectural Education

The term "Cultural sensitivity" is defined as the awareness of the existence of cultural differences and similarities and their effect on values, learning and behavior. [14]. This awareness is reflected through tangible and intangible forms of culture in the society. Elaborating it further, a relationship of translation is established on the premise of effects of cultural differences. Wherein the values, learning and behavior are translated through taught contents in architectural education and are reflected in built environment, which is a tangible form of culture. Therefore, "Culturally Sensitive Architectural Education" is defined here as the architectural education, which regards and responds to the cultural context and relates built environment to culture. It considers related cultural values and variables defining the cultural sensitivity, for example relevance to social, historical, contextual, religious, national, ethnical etc. conditions and sources of inspiration in design of the built environment. Critical review of literature also reveals that the scholarship in architectural education has shown its tendency towards the cultural sensitivity. The realization of the required change in the architectural education has opened up many relevant dimensions, where criticism by scholars has broadly surfaced.

Scholars have interpreted multiple factors regarding architectural pedagogy in seminal theories. Some of these are referred as below.

An anthropological approach to study is also used in architectural education wherein the discipline of architecture was placed within a larger cultural context, recognizing the other forces at work that shape the built environment, namely the general public. [15]. It was suggested that there is a need to define design education "culturally critical" in order to address the present imbalance of perspectives in schools of architecture.

While describing views about placement of culture in architectural education seminal architectural writer in a study states the issue as a need of time. This simplifies the core of the idea and relating it to basic allied fields wherein culture plays a pivotal role. It concludes the study by highlighting the urgent need to devise a sustainable, trans-modern (post-postmodern) culture. It is also pertinent to state here that the cultures of past were grounded in religious or spiritual traditions. The study also analyses that once this was eroded, art had to substitute for religion in offering spiritual and psychological succor. It therefore, concludes the whole idea as a challenge, which the first wave of modern masters was able to meet, and suggested its sustainability as an integrative culture to bind them. [16]

Different paradigms are also discussed in the domain of architectural education as artistic paradigm and socio-behavioral and cultural paradigms. It has been highlighted by describing that there have been several attempts to invigorate the curricula of architecture to maintain the sense of timelessness by integrating different types of knowledge into architectural teaching practices. It is discussed that unfortunately knowledge about cultural diversity has always been ignored or oversimplified. This signifies the relationship between architectural knowledge, cultural diversity and architectural pedagogy and proposes a more effective integration of culture, as a form of knowledge, into the teaching practices in architectural education. [17]. This relationship in a simplified form is depicted in Illustration-1, which shows the interrelationship of three main aspects of cultural sensitivity that can be analyzed as manifestations of culture. These are; values, learning and behavior.

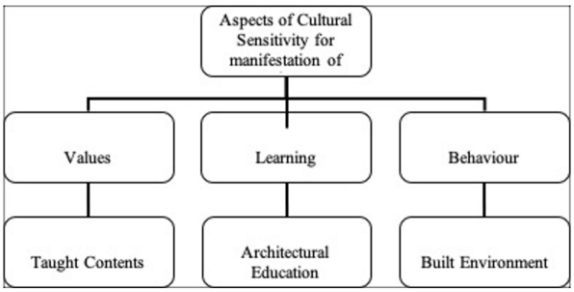



Illustration-1: Effects of cultural sensitivity and its translation in architectural education. Source: Author

Salama has also identified five approaches that act as transformative pedagogy that can bridge the gap between the artistic paradigm and socio-behavioral and cultural paradigms and help effectively in overcoming its underlying obstacles. These include: thinking globally and acting locally, reconciling lectures and studios, sensitizing students in human aspects of architecture, developing students' abilities to search and think critically, and integrating literature on behavioral research into teaching practices.

## IV. Contemporary Deliberations About Integration of Culture Into Architectural Education

The contemporary debate and considerations for architectural education also take into account some seminal deliberations. Some very considerable discussions have surfaced in the past few decades. In this connection one considerable approach has been dealt by some relevant forums; i.e through standardizing the learning outcomes through regulatory fora. Notable amongst them are three important ones as; Royal Institute of British Architects (RIBA), UIA / UNESCO Charter and Canberra Accord (CAA). These three fora identify the similarity of the issue, though the commonality of approach may differ. The concerns addressed signify the role of culture in architectural education. Firstly, the general criteria for Royal Institute of British Architects (RIBA) Part 1and 2 asked the students to have an 'understanding of the profession of architecture and role of the architect in society, and Part 2 emphasizes that students must show the 'ability to generate complex design proposals showing an understanding of current architectural issues' [18]. Secondly, the revised version of UIA / UNESCO Charter in 2005 considers culture as one of the major concerns in architectural education. It signifies architectural education, as an application, which respects the people social, cultural and aesthetic, needs. [19]. Thirdly, Charter of Architectural Education by UNESCO- UIA as implemented for Canberra Accord also describes some key points to be considered in the development of a curriculum, stating the importance of cultural aspects as, "awareness of responsibilities toward human, social, cultural, urban, architectural, and environmental values, as well as architectural heritage". [20].

Another such deliberation is the materialization of the idea in ALFA III cooperation programme between European Union (EU) and Latin America (LA), which develop higher education system in relevance to the needs of society. While ALFA-III ensures "the EU-Latin American's Common Higher Education Area objective, recognized as a strategic element for strengthening bilateral and multilateral relations between the two regions". [21]. It also provides a

platform for revisiting different aspects of higher education including curriculum. This model of addressing the curriculum driven higher education directly coincides with those considered in UIA and RIBA.

As an integral part of ALFA III Program framework and its contribution towards architectural discipline, a comprehensive structural project has been launched which is named as ADU 2020. The aim of this project is to *"discuss and design structural mechanisms to promote the modernization, reformation and harmonization of the higher education systems, aiming specifically to the expanded field of architecture, design and urbanism."* [22].

This project includes 18 partner countries with thirteen from Latin America and 5 from Europe. The project has objective to focus on the development and restructuring the higher education of architecture and urban design in order to improve the quality of education in a sustainable manner while considering the employability of the graduates in the partner countries. While this project defines its objectives extensively in detail, the major concerns to the architectural education are addressed in two main aspects related to curricula of architectural education:

1. It aims to map the existing curricula adopted for architectural studies in the partner countries in relation to the Latin America Tuning Project (ALFA III) and the professional field.
2. It focuses to make concrete propositions to update, modernize and synchronize university curricula in architecture, design and urban planning.

Another seminal approach in this realm is architectural research in order to question the validity of all the relevant debate. In this domain European Association for Architectural Education is providing of a platform for architectural research. A recent advancement in this connection is the approval EAAE Charter on Architectural Research by EAAE General Assembly China. [23]. This Charter intends as a reference document to be used in Universities, Architectural Schools, research institutes, funding agencies, professional bodies and architectural practices that are undertaking architectural research. One of the main parts of the charter is describing the societal and cultural concern to be taken into consideration while architectural research is being conducted. It narrates as: *"Architectural research takes place in a broad societal and cultural context, position is necessary, stimulating stronger links between theoretical and practice-based research and between academic and professional arenas."*

Considering the pattern of architectural education in Asia, researchers emphasize that many Asian countries have followed a Westernized paradigm in architecture especially since 20th century. [24]. Therefore, similarity exists between Asian and western countries with reference to paradigm of architectural education. Pakistan has also been influenced by this global scenario and westernized paradigm for architectural education. Moreover, these considerations for inculcating the social and cultural aspects in architectural education lead the idea of culturally sensitive architectural education to be delivered. This has affected the futuristic approach of required improvements in a manner, which tends to regard culturally sensitivity in a holistic approach. These also endorse the architectural research and practice for a culturally sensitive society.

## V. Architectural Education in Pakistan

Architectural education in Pakistan has been strongly rooted in past of the geographical boundaries where the country is located. There have been strong influences on architectural education of Pakistan which are underpinned by several factors including, post-partition needs, emergence of profession as a new entity as a whole and a completely new set of social problems at hand at the time of emergence of the country. As the country holds a long history of more than hundred years of British rule, partition of India and Independence of Pakistan in 1947 inherited a very strong influence of British concept of architecture. Architecture did not gain much prestige as a discipline in the country during first 35 years of independence of Pakistan. [25]. This may have variant reasons; mainly that medical and engineering disciplines were always at a higher priority and esteem as compared to many other disciplines including architecture. It was only in the decade of 1980 when there was a sharp rise in the recognition of the discipline. This realization was shared by a wider range of countries around the world where many more disciplines started flourishing according to the contextual requirements.

Narrating about early architecture in Pakistan, research describes that architects who were trained abroad and started practicing in Pakistan endorsed the concept of architecture. [26]. The Training of architects in the west was inspired and derived from the modern movement following broadly the Bauhaus School, Le Corbusier and Frank Lloyed Wright. Mumtaz's categorization of architects after Pakistan came into being in 1947 gives an insight of the early influences on architectural education as he has categorized architects as the first generation, the younger generation and the foreign architects. The first generation included most of the architects who were trained before 1947 were from J.J School of Art, Bombay, India, followed by their education from abroad, mostly in England and Turkey.

The originating era of architectural education in Pakistan elaborates that when Pakistan came into being, there were only a handful of architects, at the most half a dozen which was not enough number for a country to excel in architecture. There were no proper

schools of Architecture, except the architecture department at the Mayo School of Arts. This School offered a very different kind of contribution in the development of architectural sense amongst people of Lahore. [27]. This sense belonged to the appreciation of art and originated from the desks of what was available for teaching there in the form of sculpture, painting, woodwork and then subsequently the building design after many years. Therefore, the silent role of Mayo School of Art led to the acceptance of architectural education to start on formal grounds later on.

It is an evident fact that Mayo School of Arts was very silently contributing in the development of architectural education, as it became the best choice for the commencement of formal architectural education in Lahore. He has expressed that *"Mayo School of Arts did not have any noticeable influence on the limited circle of artists then practicing in Lahore, nor did it make any discernible impact on the cultural life of the city. But in course of time we witnessed some change in the role of the school vis-a vis the aesthetic appreciation among the elite."* [28].

This was in fact a very natural and pre-assumed process because of the fact that architecture and arts had always been aligned to each other for ages. Therefore, the college started its first regular course in architecture in 1958, closed down in 1962 and later on started offering undergraduate degree in architecture in 1999. The teachers at Mayo school at the time when it was serving for education of arts were not natives; therefore, they were not locally and contextually tied up to the specific school of thought, which might have raised up in some other situation. Some of them were British who were already in the place before Indo-Pak partition and independence of Pakistan, while others were migrants from India. The architectural education provided at the school helped in increasing the number of architects in the country.

The realization of the architectural profession and discrepancy in the form of un- availability of proper school of architecture were the motivating factors for the government when in 1954, the first school for architectural education was founded in Karachi by Pakistan Public Works Department (PWD) named as "Government School of Architecture". Before this architecture was being taught in an informal setup at café Al-Mehran in Karachi for a short time period where it started in the same year. Architect Mehdi Ali Mirza who was a graduate in Architecture from England was the pioneer and served as the senior architect of the Department in the formal setup. Having a strong educational background for his architectural studies, he was known to be the first mind to keep foundations of formal architectural education in Pakistan. Mumtaz (1985), throws light on his architectural studies in his book, "Architecture in Pakistan" which is pertinent in the context of how the formal architectural education started in Pakistan. Mirza was a student of Yahya Merchant at J.J school in Bombay wherefrom he left to practice for Ganga Bartabi Mahtrey's Architectural Studio in Bombay without completing his studies. He went to England to join the third year of Berlet School of Architecture, London University and then completed his study at Regent Street Polytechnic. He served at Dehli Polytechnic as Head of Architecture section before migrating to Karachi in 1947. Mirza was a well-known and expert teacher among students, notable of them were Naqvi and Siddiqui who later established an architectural partnership in Karachi.

The dedicated and conscious efforts resulted in the successful development of Government School of Architecture. Inaugurated by then President of Pakistan Field Marshal Ayub Khan as a government institution, in 1962, it was established by Dawood Foundation as Dawood College of Engineering and Technology in 1964. The college was nationalized in 1964 and named as National College of Engineering and Technology, but again restored with original name in recognition of services of Dawood family later on in 1980. It was in 1972 when subsequently the School of Architecture was merged into then National College of Engineering and Technology (N.C.E.T). The first batch of students graduated in 1977 from the same old Institution, at the same time a number of architects were returning after their graduation from abroad, especially United Kingdom and Turkey.

A remarkable milestone for architectural education in Pakistan emerged in 1969 with the decision that the students should be selected on basis of intermediate science (Pre- Engineering) was taken, which was not the case before. It was a stringent aptitude test and a proper interview of the student was taken, which was required to be qualified before setting the new pre-requisite of pre-engineering at intermediate level. This change in the selection criterion was intended to raise the status and recognition of architectural education at a formal level where all other disciplines like medical and engineering were being considered. A Monograph, jointly published by Government school of Architecture and Department of Architecture N.C.E.T for celebrating the Twenty- fifth anniversary of the founding of Architectural Education in Karachi, Pakistan. (1954-1979) highlights the change as an improvement stating as;

*"The change resulted in improvement in the standard of education by virtue of a stronger base for scientific and technical know-how and a better knowledge of English language.*"

After the opening of the Government School of Architecture in Karachi, Sindh, in 1962 another school of Architecture was established in Lahore in Mughalpura Engineering College.This was upgraded to the West Pakistan University of Engineering and Technology. History shows that the founding years of architectural education in Punjab in the city of Lahore,

that a special committee of experts in architectural field was constituted for suggesting the formal establishment patterns of Architecture Department at West Pakistan University of Engineering and Technology, Lahore. The major focus was the development of architectural education and production of well- versed architects who should be able to address all categories of local, global, historical and futuristic concerns and requirements. After a year of detailed discussions, an academic committee recommended its first report containing syllabus and a full-time course of reading for bachelor of Architecture. It is further revealed that Mr. Lonmg Bone, an expert from UNESCO extended his expertise for the smooth functioning of the Department of Architecture in 1962, while the initial course was set in accordance to the Royal Institute of British Architects, (RIBA). The Department initially had twenty students taught by only three teachers who made the first batch of undergraduate study of architecture and only five qualified by the end of 1965. [29]. Researchers have described that Pakistan has a long-combined history, which is shared with many nations before its independence. This is evident of the fact that its educational system including architectural education must have undergone many visible and hidden additions and subtractions through its course of time. In this regard influence of some countries is of significance where both sides have shared experiences and resources. [30]. Amongst them are two important countries Turkey and United Kingdom, which have greatly influenced architectural education in Pakistan. These two countries contributed in the development of Architectural Education in the country. There are two major reasons for this; firstly, the architects graduated from these two countries were very well accommodated in architectural profession in Pakistan especially when the country was undergoing the developmental stages, and secondly both countries accommodated many students for their studies at undergraduate level, who then served after coming back to their homeland. Pakistan has experienced a very well-established connection for both faculty and students with United Kingdom and Turkey. The obvious reasons exist for these connections as the involvement of British school of thought in the region where Pakistan exists now, has always been there since long. While a long historical background of close ties of Mughal and Ottoman architects and then contemporary architectural education exchange for faculty and students is also seen significantly in case of Turkey. The involvement of first generation in architectural schools

Illustration-2: Glimpses of work at Department of Architecture, Mehran University of Engineering and Technology, Karachi-2018

as teachers inculcated the aspect of multicultural input in architectural education. The selected school for this research is located in the city of Jamshoro, in province of Sindh, the largest province of the country in terms of number of people.

## VI. Department of Architecture, Mehran University of Engineering and Technology, Jamshoro (MUET)

Department of Architecture at Mehran University of Engineering and Technology was established in 1980. It started establishing itself by following the entrance rules and teaching patterns applicable and exercised in then Department of Architecture and Planning, Dawood College of Engineering and Technology. With the passing out of first batch of undergraduate students, the department was striving to establish its teaching objectives in view of its transition stage. It was a consistently nurtured institution being a part of a larger setup of an Engineering University that resulted in the rapid development and recognition of a new architectural institution. The same department was honored to offer affiliation for Department of Architecture for Architecture Department of Dawood College during 1997- 2007. The department is envisioned with environmental considerations for both urban and sub- urban settings. According to the approved statement of vision for the department, the courses of study at the department of Architecture emphasize on the design activity as the core subject with the qualitative blend of specified additional courses to enable students to develop an understanding of physical and built environment and socio- economic conditions. On the other hand, the department also claims through its that through its curriculum also makes efforts to block the unnecessary and overwhelming spirit of modernism so that a well-defined regional and vernacular architecture with basic components and aspects of culture and environment. The curriculum under study during research at Department of Architecture and Planning, Mehran University of Engineering and Technology, Jamshoro is a five-year course with Fifty-six (56) subjects. [31].

## VII. The Premise of Research Design:

Seven profound research approaches that can be possibly used for architectural researches according to the context have been described by scholars. These are termed as, historical, qualitative, correlational, experimental, simulation, case study and combined approach. [32].

This research adopts the case study method according to the context of the study for investigating research questions. Researchers have also endorsed the most commonly cited definition of a case study by with a little alteration describing it as an empirical inquiry that investigates a phenomenon or setting. It is further argued in this context that a case study approach is suitable when the study is deliberated towards the contextual conditions. [33]. The available literature in this regard signifies the role of cultural variables in educational process of architecture and thus in the built environment. It adds value and validity in the core inspired by “House, form and culture” the cultural identities and variables through famous phrase “form follows function”. [34]. It is argued that although the phrase applies to many cases around the world, however, too many dissimilar cases cannot be simply ignored where the same function is addressed very well fit in a specific culture resulting in quiet different types of building forms. Therefore, 'form follows function' does not portray the inclusiveness of the architectural design process. Therefore, some more aspects are suggested to be considered as several aspects which also follows function other than form just alone. These may include material, income, topography, climate, faith, age and culture. Although” form follows function” philosophy continued to be a guiding principle in Bauhaus School of Architecture in 1919 onwards, however, there are some more relevant aspects required to be taught to students of architecture, cultural sensitivity being one of them. This signifies the position of culture to be explored relating it to the process of architectural education when it is narrated as “form follows culture.”

Moreover, in a study about cultural sensitivity in application to education it has broadly concluded that in addition to ethnicity, gender and religion, the social prospects, historical connections and the spatial context also may play a role in shaping behaviors. [35]. This concept also provides as a baseline for several educational disciplines and adopted here for its application to the discipline of architectural education. Section-8.2 and Table-1 shows the selected explored aspects of cultural sensitivity devised on basis of suitable application of the a well-defined concept developed in the study in the process of architectural education. The concept also leads to the selection of cultural variables as spatial, religious, social, historical and ethnical, that are further investigated in Figure-6.

The contextual conditions of the study are specified type of discipline of architecture, and specific type of socio-cultural setting in which the case study school exists. Hence, the contextual conditions for this research directs the study aims to focus on two interconnected exploration areas of cultural sensitivity; firstly, the composition of architectural education in terms of content, methodology and outcomes which respond to society and dictates its characteristics to be absorbed in a cultural setup, and secondly, the role of architectural education as socio cultural variable which deals with the built environment as a tangible attribute of culture. The study thus aims to assess the effective

presence of culture in architectural education. Moreover, since the architectural education is translated to the society through the curriculum taught in architectural schools and then applied to the society, therefore it is assumed that the applied level of cultural aspects present in the curricula of architectural schools may affect the understanding of architecture itself and the societal norms as well. The setting of this study will essentially focus on the evidences from selected case study in province of Sindh.; Department of Architecture, Mehran University of Engineering and Technology, Jamshoro.

The research probes into following aspects of culture in order to assess the presence of cultural sensitivity in the taught content through curriculum.

A: Standing prospects of culture in architectural education at undergraduate level.
B: Cultural variables included in the curriculum for cultural understanding.
C: Futuristic perspective of school in terms of cultural aspects.

The premise of this research exploring culture in Architectural education is underpinned through the concept of cultural sensitivity. Therefore, it is assumed that the entity of cultural sensitivity in currently applied curricula of architectural education exists in an over simplified form. This assessment for presence of culture is carried out through a conceptual framework, which is developed in order to answer the research questions through quantitative mode to draw the findings and conclusions in a holistic manner.

## VIII. Methodology

The study focuses on the undergraduate level of architectural education. Basic methodology to be adopted is quantitative approach, which is used to draw the conceptual framework and futuristic concerns in scholarship. The quantitative method is used to seek the facts currently prevalent in selected architectural school using the case study approach. It measures the validity of exploration on basis on quantitative grounds. The sample selected for the case study is of two types; faculty and students. The data from both kinds of sample is collected with help of two different questionnaires, which are interrelated to each other, keeping in view the different requirements of individual sample.

*8.1: QUANTITATIVE DATA:*

The quantitative data is collected to set a base for exploration, which essentially contributes to the factual understanding. This quantitative data is collected through two basic tools for investigating the research questions; questionnaires and curriculum.

*8.1:(a): QUESTIONNAIRES:*

Questionnaire is selected as one of the tools for quantitative data collection. The questionnaires designed for faculty and students focuses the exploration about ten different aspects listed in Table-1. These separately designed questionnaires for both categories faculty and students are used to collect data from faculty members of all schools regardless of which year / semester they are teaching at undergraduate level, while the questionnaire for students caters only at fourth year level. This level is considered to be explored for research considering an anticipated well-established understanding of student about architecture. The questionnaires extended to both types of respondents have commonalities and differences in order to extract the relevant information to its maximum extent.

*8.1 : (b): CURRICULUM:*

The second tool used for collection of quantitative data is the document of curriculum used officially by school for teaching Architecture at undergraduate level during the time of research. The target data to be extracted from curriculums is both implicit and explicit in nature. Some of the clearly mentioned notions in the official document of curriculum for school are strengthened by implicit notions, which are further translated in a curriculum matrix of descriptive nature. This curriculum matrix is used as a reference document for this research. [36].

*8.2: EXPLORED ASPECTS OF CULTURE:*

Table-1: Explored aspects of culture in relevance to Architectural education

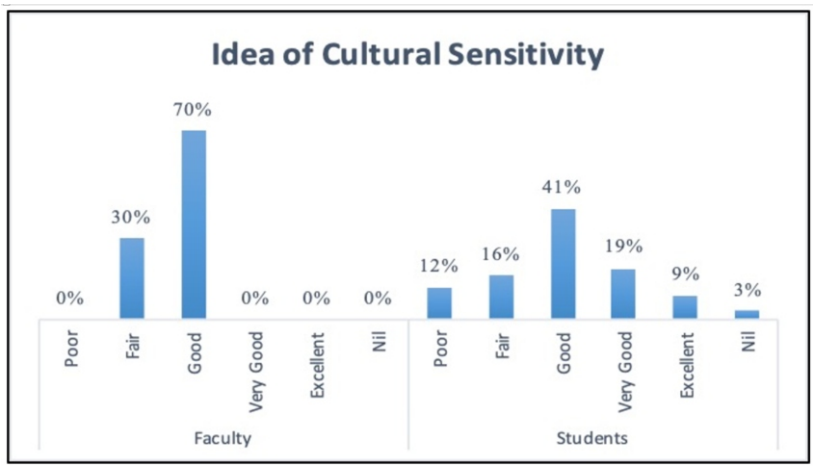
| Sr No | Research Probes | Respondents Faculty/ Students |
|---|---|---|
| 1. | Understanding of cultural sensitivity | Both |
| 2. | Suggested Course Objectives | Both |
| 3. | Level of inclusion in courses. | Both |
| 4. | Current emphasis of the curriculum. | Both |
| 5. | Mode of Emphasis on cultural sensitivity. | Students |
| 6. | Significant Factors (Variables) to develop cultural understanding | Faculty |
| 7. | Need of alteration in courses. | Students |
| 8. | Suggested kind of improvement to develop cultural sensitivity. | Students |
| 9. | Future of cultural sensitivity in architectural academics. | Faculty |
| 10. | Future of cultural sensitivity in architectural practice | Faculty |

## IX. Findings, Analysis and Discussion

This research probes as mentioned in Table-1 are explored and findings are as follows:

*9.1 : Idea of Cultural Sensitivity:*

Data findings regarding idea of cultural sensitivity




| Legend of terms used | |
|---|---|
| Nil | No opinion |
| Poor | Not good idea/ Insolvent idea |
| Fair | Reasonable/ effective idea |
| Good | Sufficiently reasonable idea |
| Very good | Substantially reasonable idea |
| Excellent | Outstanding / exceptional Idea |

Figure-1: Idea of cultural sensitivity

reveal following results as obtained from questionnaires.

The figure-1 indicates that 0% of the faculty members find it as a poor idea, 30% mark it as a fair idea,70% mark it as a good idea, 0% mark it as a very good idea while 0% mark it as an excellent idea and 0% as Nil. It also indicates that 12% of the students find it as a poor idea, 16% mark it as a fair idea, 41% mark it as a good idea, 19% mark it as a very good idea while 9% of the respondents mark it as an excellent idea and 3% responded as Nil.

This indicates the fact that the extremes are very less while a reasonable and equal number of faculty members find it as a good idea to be applied at the undergraduate level in architectural education. The findings also signify that students have understood the idea on the same notions as faculty members have. No significance contrasts of both stake holders; faculty and students stand out.

The findings reveal that there is a general level of understanding about the idea present in the respondents of both types; faculty and students. The idea of cultural sensitivity is endorsed mostly as a good factor but at the same time other respondents also considered it in more or less as fair, very good and excellent while very less consider it as a poor idea. There may be multiple reasons for this consideration, Firstly, it is likely to have influence of the contemporary content of courses included in the curriculum. Some of the respondents consider it as a poor idea that may be underpinned by the fact that understanding of cultural sensitivity is sometimes mixed up with the idea of traditional architecture, which is not the case. Since the culture is an adaptable entity, having tendency to change with time, there is a need to understand cultural sensitivity as another and clearly different idea from that of tradition. Moreover, as most of respondents have a mid- stream opinion of the idea as a "good" factor, it is revealed that the general understanding about cultural sensitivity in architectural education is understandable.

*9.2: Suggested course objective:*

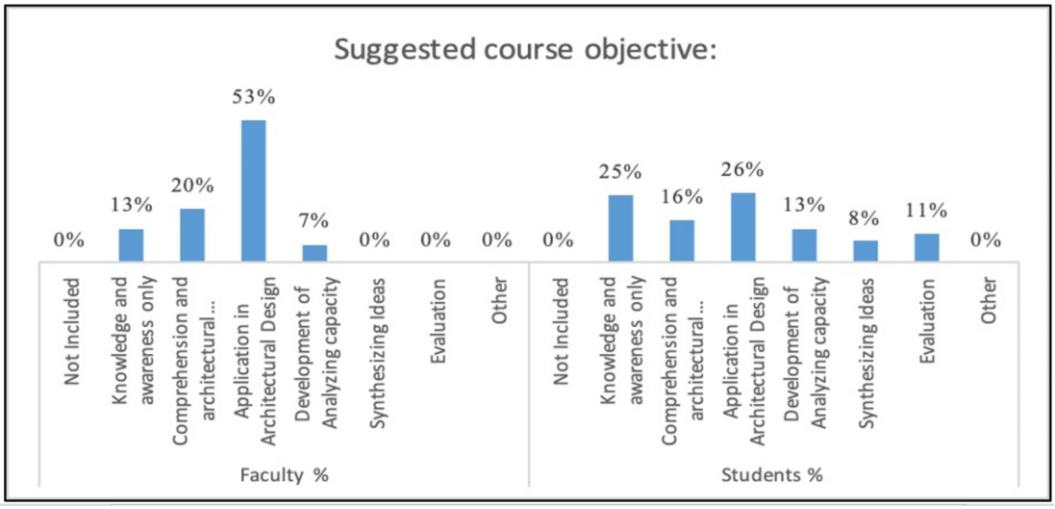



Figure-2: Suggested course objectives

Figure-2 indicates the faculty suggestions for the course objectives as 13% for knowledge and awareness only, 20% for comprehension and architectural vocabulary, 53% for application in architectural design, 7% for the development t of analyzing. capacity, 0% for synthesizing ideas,0% for evaluation while none of the new aspect is suggested by the faculty. It also indicates the students suggestions for the course objectives as 25% for knowledge and awareness only, 17% for comprehension and architectural vocabulary, 26% for application in architectural design, 13% for the development t of analyzing capacity, 8% for synthesizing ideas, 11% for evaluation while 0 %of the new aspect is suggested by the students.

The findings indicate the coherence in faculty and students for their understanding about cultural sensitivity exists specifically in terms of application in architectural design. The finding also indicates that the most important and emphasized objective of the cultural sensitivity in undergraduate curriculum is considered as the application in architectural design where considerable number of respondents from students showed concern in terms of their understanding. This also signifies the fact that the faculty tends to apply the cultural sensitivity through the adopted curriculum and students have developed the same aspect in their understanding and the taught content.

The suggested course objective in case study is resulted as application in architectural design. This also strengthens the idea of integrating cultural sensitivity with architectural education through the architectural design process. The curriculums adopted in case study is also evident of the fact that most of the time the cultural sensitivity is not brought to the surface and kept as a hidden element of the process of academics. At the same time the presence of culturally sensitive content at all five- year levels in the curriculum highlights the fact that in the process of teaching.

*9.3: Level at which included in courses:*

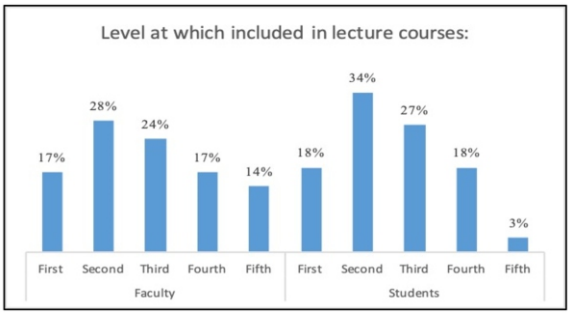



Figure-3: Level at which included in courses

Figure-3 indicates that 17% of the faculty members have an understanding that culturally sensitive content is present in the curriculum at first year level, 28% at second year level, 24% at third year level, 17% at fourth year level and 14% at fifth year level in the undergraduate curriculum in theory or lecture courses. It also indicates that 18% of the students have an understanding that culturally sensitive content is present in the curriculum at first year level, 34% at second year level, 27% at third year level, 18% at fourth year level and 3% at fifth year level in the undergraduate curriculum in theory or lecture courses.

This finding indicates that more coherence is present in both stakeholders for their understanding of culturally sensitive content in curriculum at First year and fourth year level. At the same time coherence exists in the understanding of faculty and students while analyzing the culturally sensitive content present in the curriculum. The faculty and students consider that second year level in undergraduate curriculum contains most of culturally sensitive content.

*9.4:* Current emphasis of the curriculum:

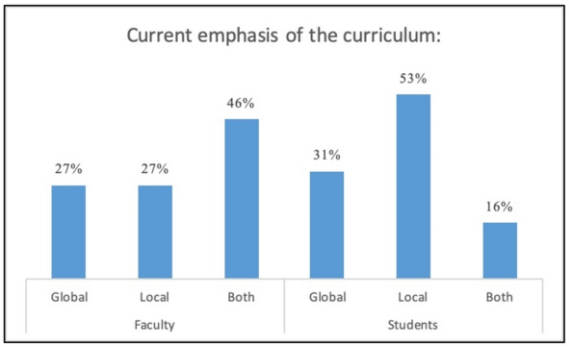



Figure-4: Current emphasis of the curriculum

Figure-4 indicates that the faculty endorses current emphasis of the curriculum as 27% global, 27% local and 46% glocal and 0% as Nil. It also indicates that the understanding of students about current emphasis of the curriculum is 31% global, 53% local and 16% glocal and 0% Nil. The findings indicate that very less coherence exists in both stakeholders in this regard. Although the findings signify, the fact that currently adopted curriculum in the school is more considerate about glocal aspects of culture; but the students are inclined towards local understanding through their studies, and are considering all three areas more or less equal. This implies for both theoretical and studio courses.

Moreover, the current emphasis of the curriculum in case study is found out as a mixture of both local and global. This is also related to the fact that the school is striving to include several global paradigms and methodologies in addition to maintaining its own specific contextual needs. Ever since the emergence of architectural education in Pakistan, architectural

schools generally have realization of both the aspects of local and global needs; former for their own development of built environment in the country and rare for the futuristic visions in order to meet the global standards of architectural education. In addition to this the country having a long history of influences from British and Turkish architectural education in terms of literal exchange of resources, has strengthened the realization to be applied into the process of architectural education.

This is also endorsed and guided by curriculum revision division of Higher Education Commission of Pakistan while defining the objectives of curriculum of architecture and is also well reflected in the curriculum of case study.

*9.5: Mode of emphasis on cultural sensitivity (Student Respondents)*

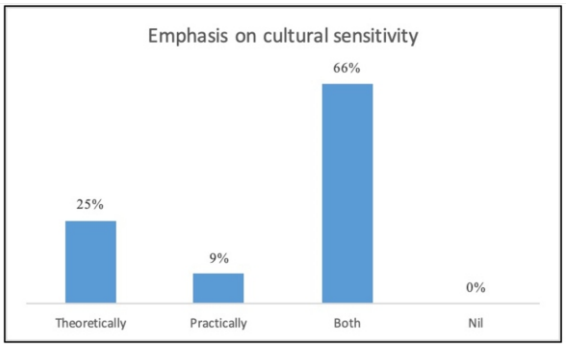



Figure-5: Mode of emphasis on cultural sensitivity. (Student respondents)

The findings in figure-5 indicate that students understand that both methods of teaching; theoretical and practical are emphasized in the taught content. The case study reveals that the mode of emphasis cultural sensitivity is suggested as a combination of both theoretical and practical method. This acknowledges the understanding of respondents that there are certain subjects, which are important to be taught on theoretical basis while some subjects on practical basis. Therefore, it is necessary to consider the multiple methodology of teaching architecture in order to create cultural sensitivity.

Figure-6 indicates the ratings of significant variables in terms of cultural sensitivity. The findings show the following facts:

1. Spatial Context-20% rated as 1, 0% rated as 2, 20% rated as 3, 60% rated as 4 and 0% rated as Nil.
2. Religious- 25% rated as 1, 25% rated as 2,0% rated as 3, 50% rated as 4 and 0% rated as Nil.
3. Social-25% rated as 1, 0% rated as 2, 12% rated as 3, 63% rated as 4 and 0% rated as Nil.
4. Historical-0% rated as 1, 14% rated as 2, 29% rated as 3, 57% rated as 4 and 0% rated as Nil.
5. Ethnical-25% rated as 1, 0% rated as 2, 25% rated as 3, 50% rated as 4 and 0% rated as Nil.

The case study presents some significant variables of culture as perceived by the respondents. It is resulted that the social factor (variable) of culture is dominant at maximum rating. The factor of social cultural variable is related to the humanistic needs of the society, which are the ultimate objective of architecture to work out. It is also observed here that more than any other variable like spatial context, religious, historical, and ethnical which were given as options, social variable is the one that is mostly included in the curriculum. This inclusion is in the form of both theoretical and practical forms (referring to the result of section- 9.5)

*9.6: Significant variables with ratings: (Faculty Respondents)*

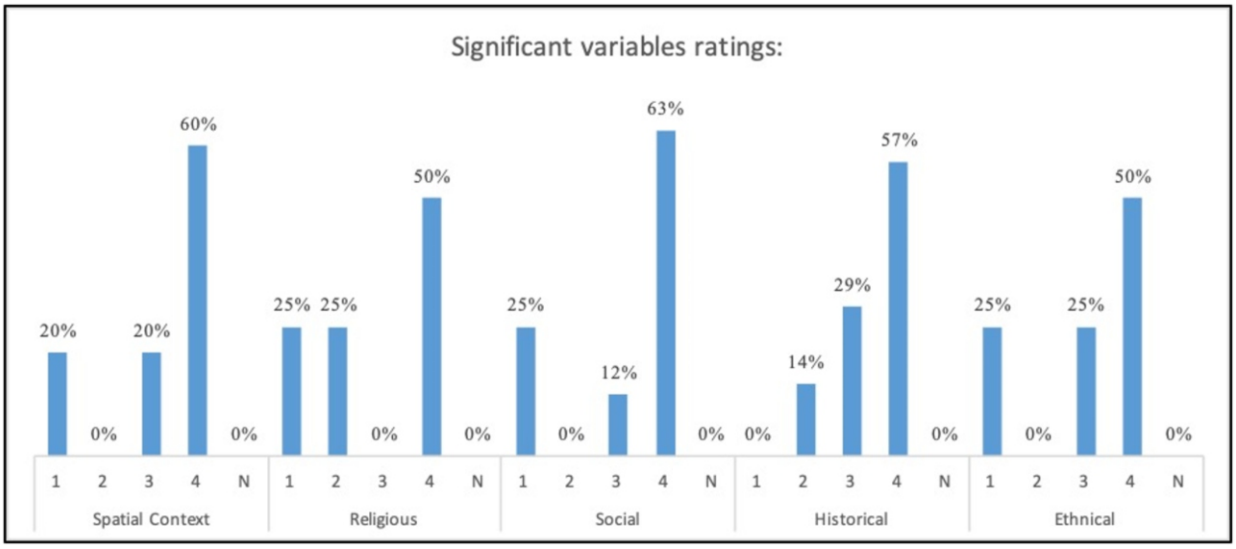



Figure-6: Significant variables with ratings (faculty respondents)

*9.7: Need of alteration in courses (Student respondents)*

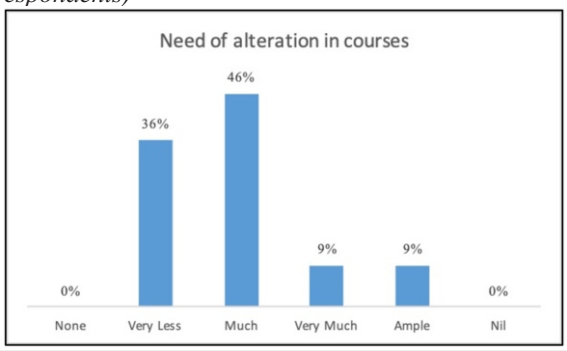



Figure-7: Need of alteration in courses (student respondents)

The findings in figure-7 indicate that 0% of students think that there is no need of any alteration or improvement in academics. 36% of the students feel that there is a very less need of alteration in the taught content in the courses in terms of cultural sensitivity, 46% feel that this need is much, 9% responded that there is very much need of it while 9% opined that there is ample need for alterations, while 0% responded none.

The results show that there is much need of alteration or improvement in academic courses in terms of cultural sensitivity. The results also shows that some respondents have opined that there is very much need for alteration while some have suggested very less need of alteration in courses. This question is included with the objective of assessing the extent of need for alteration at a general scale keeping in consideration different focuses and nature of courses adopted in school.

*9.8: Suggested Kind of Improvement to develop cultural sensitivity (Student respondent)*

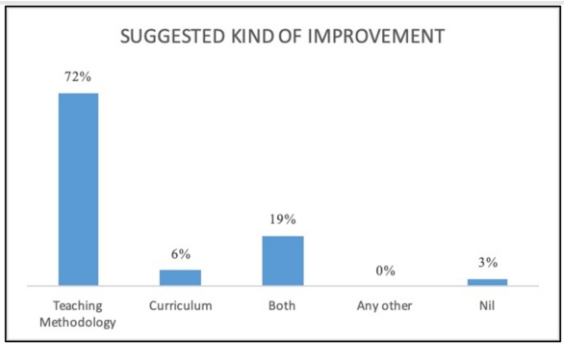



Figure-8: Suggested kind of improvement to develop cultural sensitivity (Student respondent)

Figure- 8 shows that 72% of students suggest addressing both the curriculum /course content and teaching methodology for improvement in terms of developing cultural sensitivity in undergraduate study. 6% students suggest addressing only the curriculum and 19% only teaching methodology. 0% of the students did not suggest any option while 3% suggested some other improvements for the development of cultural sensitivity.

The suggested kind of the improvement in case study is resulted as in both curriculum and teaching methodology. The maximum respondents have endorsed this improvement for both of these aspects. This is also relevant to the new experimentation at individual school level and implementation of focused efforts through curriculum revision by Higher education commission of Pakistan (HEC) for architectural schools. Since Pakistan Council of Architects and Planners (PCATP) endorse the adoption of guidelines for by commission, therefore it becomes inevitable to work out for the curriculum revision including the methodology on regular basis.

*9.9: Future of cultural sensitivity in Architectural academics:(Faculty respondents)*

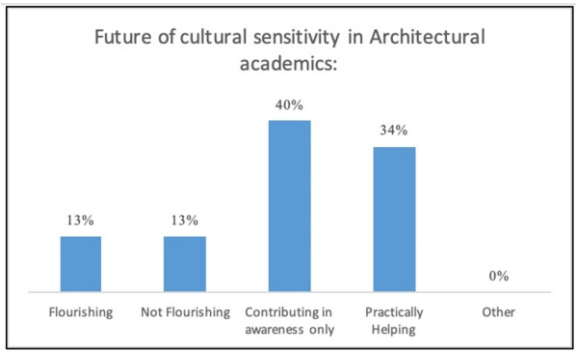



Figure-9: Future of cultural sensitivity in Architectural academics: (Faculty respondents)

Figure-9 indicates the future of cultural sensitivity in architectural academics as 18% consider it as flourishing, 9% consider it as not flourishing, 18% consider it as contributing in awareness only, 37% consider it as practically helping in creating sensitive built environment and 18% consider any other option for same.

Figure-10 indicates the future of cultural sensitivity in architectural academics as 0% consider it as flourishing, 0% consider it as not flourishing, 27% consider it as contributing in awareness only, 46% consider it as practically helping in creating sensitive built environment and 0% consider any other option for same. it is considered by maximum number of respondents that the future of cultural sensitivity is well understood in academics and it is practically helping in creating the culturally sensitive built environment.

This may relate to the emphasized inclusion of culturally sensitive content in the curriculum at both practical and theoretical level and by both means.

*9.10: Future of cultural sensitivity in architectural practice: (Faculty respondents)*

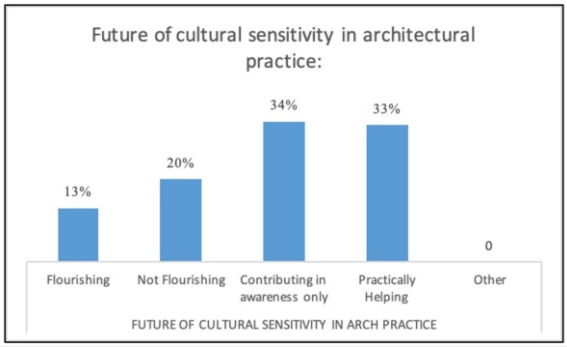



Figure-10: Future of cultural sensitivity in architectural practice (Faculty respondents)

At the same time a notable part of respondents also see that architectural academics will be only contributing in creating awareness about cultural sensitivity.

The case study suggests by maximum number of respondents that future of cultural sensitivity is not flourishing. At the same time a notable part of the respondents also have the opinion for two other given options equally, that it is contributing in awareness only and practically helping in creating culturally sensitive built environments. This shows a very multi directional result in terms of architectural practice, which leads to an observation that cultural sensitivity, is not embedded in architectural practice to an extent where it can reflect its effective behavior.

## X. Conclusions

The idea of cultural sensitivity is well understood in architectural school selected as case study. Some significant findings are; while comparing important factors as objectives, application in architectural design is the highest rated factor, which exists as course objective for the inclusion of cultural sensitivity. Culturally sensitive content is present in the curriculums/ course contents of the school generally spread over all the years of study and specifically during mid-levels of the course where the understanding of the students are well- developed. Three significant variables of culture found as Social, spatial context and historical which are mostly considered and included in the courses of study in architectural education at undergraduate level. Respondents also suggested need for improvement of culturally sensitive content in curriculum through teaching methodology. Moreover definition of culture adopts a new form in contemporary times, which can be narrated as, culture is a holistic term communicated to and by society, composed of tangible and intangible attributes, having tendency to adapt change with time. Culture, therefore is a potential attribute of the society that can be further explored through architectural education as its imperative part.

## XI. Acknowledgment

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