

<https://doi.org/10.5281/zenodo.19986050>

## Challenges And Opportunities Of Madrasah In Balochistan, Pakistan: Societal Integration, Market Employability, And Architectural Innovations



|                                                     |                                                                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mehreen Sanaullah                                   | Department of Architecture, Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS), Quetta 87300, Pakistan                                          |
| Naveed ur Rehman Anwar                              | Department of Architecture, Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS), Quetta 87300, Pakistan                                          |
| Laiba Najeeb                                        | Department of Architecture, Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS), Quetta 87300, Pakistan                                          |
| Jalal Faisal Khan                                   | Department of Architecture, Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS), Quetta 87300, Pakistan                                          |
| Dr. Ar Omer Shujat Bhatti<br>(Corresponding Author) | Department of Architecture, School of Architecture & Planning, University of Management & Technology, Lahore, Pakistan<br><a href="mailto:omer.shujat@umt.edu.pk">omer.shujat@umt.edu.pk</a> |

**Abstract:** *In Pakistan, the madrasah system is a significant socio-religious institution that provides vital welfare and education services to millions of people, especially in underdeveloped areas like Balochistan. Despite its social importance, there is a persistent discrepancy between traditional pedagogical models and the demands of the modern labor market that leads to socio-economic marginalization. This study is an examination of systemic barriers to market employability of madrasah graduates in Quetta with special emphasis on the role of building learning environment. The study employs a mixed-method approach, combining qualitative data from semi-structured interviews and purposive sampling of students, educators and community members with direct architectural inspection of madrasah facilities. Findings reveal a significant 'spatial-pedagogical disconnect' where rigid and 'static' classroom environments hinder cognitive development and technical skill acquisition. Furthermore, the data shows that the community is quite open to reform although "exposure poverty" of modern technology is widespread. The study concludes with the proposition of a "Live, Learn and Earn" architectural framework. This purpose-built model integrates religious education with digital literacy and vocational training to foster economic independence and social dignity for graduates.*

**Keywords:** *Madrasah Education, Institutional Architecture, Balochistan, Vocational Training, Innovative Learning Environments, Social Integration*

### Introduction

The madrasah system in Pakistan is one of the major socio-religious institutions that provide vital welfare and educational services to

millions of people particularly in the underdeveloped areas like Balochistan. Despite its social importance, the ongoing gap between

traditional pedagogical models and the requirements of the modern labour market leads to socio-economic marginalisation. The present study is an inquiry into the systemic barriers to the market employability of madrasah graduates in Quetta with particular reference to the role of built learning environment. The research uses a mixed method that involves qualitative data from semi-structured interviews, purposive sampling of students, educators and community members, and direct architectural inspection of madrasah facilities. Findings reveal a significant 'spatial-pedagogical disconnect' in which rigid and 'static' classroom environments inhibit cognitive development and acquisition of technical skills. Also, data show that the community is quite receptive to reform although "exposure poverty" of modern technology is widespread. The study ends with a proposal of a framework of architecture called "Live, Learn and Earn". It is a purpose-built model that integrates religious education with digital literacy and vocational training to empower its graduates economically and socially.

### 2.1 Madrasahs as Education Centers

The word "madrasah" comes from the Arabic root "darasa," which translates to "to study" or "to learn." A madrasah is essentially an institution of learning focused on Islamic education and historically covering a much broader range of knowledge domains. This paradigm is predicated on the fact that Islam is a philosophy that promotes knowledge as a dual intellectual and spiritual pursuit. The first time the Quran was revealed to Prophet Muhammad (peace be upon him) is an example of this necessity. This verse accentuates learning as a divine command, a gracious gift from God and a gateway to infinite understanding of the world and the metaphysical. Islam has always placed knowledge at the highest pedestal and madrasahs have been institutions of supreme importance nurturing religious, spiritual and secular knowledge (Rizapoor, 2023). The madrasahs began as informal gatherings of scholars in mosques or private homes, but over time developed into formal institutions that became a focal point for the intellectual and

cultural life of the Muslim world. Madrasahs were historically not just religious schools but also schools of medicine, mathematics, astronomy and philosophy, contributing to the exchange and development of ideas. They were open to all social classes and they trained future scholars, imams, judges and teachers. Students studied 'fiqh' for justice, Quran and Hadith for spiritual preservation and sciences which would later influence the western world (Mumtaz, 2021). Madrasahs were much more than personal learning spaces; they were engines of social development. Its graduates became leaders, advisors to rulers, community educators, and judges, providing practical knowledge that instilled values, ethics, and moral stability across civilizations (Abrori, 2020).

### 3. Review of the Literature

The madrasah system of education is a socially relevant and historically situated part of the educational landscape of Pakistan. In the pre-colonial subcontinent, madrasahs were the principal mode of knowledge transmission. They traditionally taught religious instruction along with the rational sciences, philosophy, and literature. But the colonial educational reforms and the emergence of a dual system of education after independence gradually converted them into religious educational institutions. The current scholarship has consistently represented Madrasahs as a parallel system to public and private schooling with their own curricula, governance structures and pedagogical approaches (Rahman, 2004). While madrasahs still play an important role in Pakistan in providing education to the disenfranchised. A large body of research shows that these institutions serve a large number of students who would otherwise be excluded from the formal education system due to financial constraints, geographical inaccessibility or systemic inefficiencies (Bano, 2012). One feature much noted in the literature is the provision of free education, often with boarding, meals, clothing and basic health care. This holistic support system makes madrasahs not only an institution for religious learning, but also a welfare institution that reduces the economic

burden on low-income households (Bano, 2012).

Their role is therefore not only educational, but also in the field of social protection. Recent academic discourse suggests that the lower middle-class families are getting popular with madrasah education (Bhatti and Huma 2023). Empirical studies suggest that for many economically insecure households, the decision to enrol children in madrasahs is more a function of pragmatic than ideological considerations (Andrabi, 2006). Madrasahs are often a desirable and necessary option, providing free accommodation and food. This trend is indicative of wider structural weaknesses in Pakistan's public education system including poor infrastructure, teacher shortages and regional disparities in educational quality. Madrasahs are therefore important, particularly in those areas where provision by the state is still absent.

In provinces like Balochistan the madrasah system is of greater significance. (Government of Pakistan, Pakistan Education Statistics; Khan, 2016) Balochistan is a low literacy rate area with sparse population distribution and limited access to formal educational institutions, hence alternative educational structures are more significant. In cities like Quetta, and also in more remote rural areas, there are community-based institutions that are accessible and provide both education and social support. They are also rooted in local social and cultural contexts that makes them more acceptable and legitimate to the communities. In such circumstances madrasahs are not merely supplementary but often the main educational route. The madrasah system is socially beneficial and inclusive. A vast literature has critically discussed the academic and socio-professional impact of madrasah education. A recurrent finding of the studies is the mismatch between traditional madrasah curricula and current socio-economic needs. The curricula of most madrasahs continue to emphasise classical religious texts with little inclusion of modern subjects such as science, mathematics and technology (Rahman, 2004). Such a curricular orientation hampers the acquisition of market-relevant skills and

diminishes the employability of graduates in a competitive labour market. Consequently, madrasah graduates frequently face limited mobility and restricted access to a wide range of professions.

Research on madrasah systems shows pedagogical approaches beyond academic constraints. A key criticism is that the emphasis on rote memorisation and teacher-centered instruction prevents the development of critical thinking, analytical reasoning, and problem-solving skills (Fair, 2008). Such approaches may be effective in the preservation and transmission of religious knowledge, but are less consistent with contemporary paradigms of education emphasising interactive and inquiry-based learning. This pedagogical gap further exacerbates the difficulties faced by madrasah students to transition into mainstream educational or professional settings.

Some academic interest has also been taken in the social and psychological aspects of madrasah education. Research shows that madrasahs are good for moral development, discipline and religious identity, but may not develop the confidence and adaptive social skills needed to participate in the larger, pluralistic society (Bano, 2012).

The combination of outdated infrastructure and lack of attention to design and classrooms in many residential madrasahs can create a somewhat isolated environment that limits students' exposure to a range of perspectives and social settings (Bhatti et al. 2024). Consequently, graduates may encounter difficulties in communication, self-expression, and integration within mainstream societal structures, which may manifest as social and psychological challenges. Another important issue raised in the literature is the role of the dual education system in reinforcing social stratification. The existence of madrasah, public and elite private education systems produces separate educational pathways, which are closely linked to socio-economic class divisions (Rahman, 2004). Most Madrasah students belong to the weaker strata of society and are often restricted to limited career options, thus continuing the cycle of inequality. This sort of

structural segmentation affects economic outcomes as well as social identities and perceptions, and thus contributes to the division of society. In the specific context of Balochistan and Quetta, these challenges are worse due to the socio-economic and infrastructural constraints under which the country is operating (Shoaibullah, 2025).

The poor integration of madrasah education with formal education structures limits the scope for academic mobility, including access to higher education or vocational training. In addition, in some cases, the lack of standard curricula and regulation worsens the differences in the quality of education. The madrasahs continue to play a significant role in offering accessible education and social support, but the misalignment with contemporary educational requirements intensifies the long-term difficulties encountered by students.

Thus, the literature confirms the critical, but complex role of the madrasah system in the national education system of Pakistan (Shah et al., 2025). It is an important tool for educational access and social welfare for the lower middle class and in underdeveloped areas like Balochistan. Simultaneously, persistence of traditional curricula, limited skill development, the absence of purpose built madaris that could cater to the needs of the basic educational form, and the lack of integration with mainstream education contribute to significant academic, social and psychological challenges among students.

### **3.1.1 Profile of Madrasahs in Pakistan**

Madrasah education is expanding in Pakistan, in close correlation with structural gaps in the formal education system, particularly in marginalized and peripheral areas. Madrasahs have historically been an alternative educational system in the provinces such as Balochistan, where poverty, weak infrastructure and limited institutional reach limit access to public schooling. These institutions, besides imparting religious education, serve important social objectives in providing free education, lodging and subsistence, thus drawing families from economically marginalized sections

(International Crisis Group, 2002; Rahman, 2004). The students, commonly known as talib, enroll in the madrasa and are predominantly located in rural and tribal settings where Islamic learning holds significant cultural, moral and social value. One has to look at national statistics and also at provincial level dynamics in order to understand this demography.

The statistical picture of the madrasa sector at the national level is complicated and contested. Studies conducted in the past report the number of madrasahs ranging from about 13,000 to 35,000 institutions (Mushtaq, 2017; Shah, 2018), which suggests the inconsistencies in data collection and the scope of definition. According to government records from a recent period, especially following regulatory moves such as the Pakistan Madaris Registration Bill 2024, the country has around 17,738 officially registered madrasahs with an estimated enrolment of about 2.25 million students (Government of Pakistan, 2024). Nevertheless, more comprehensive estimates that incorporate unregistered or informal institutions indicate that the total number of madrasahs may be greater than 36,000, with student populations between 3.3 and 4.6 million (National Commission for Rights of Child [NCRC], 2025). This gap highlights a major problem in madrasa research: the gap between formal, registered institutions and a parallel universe of unregulated or community-based seminaries that are statistically invisible. In this national context, Balochistan is unique and under-examined spatiality. The scattered population, difficult terrain and weak state presence have meant reliance on alternative systems of education, of which madrasahs are an important component. The official figures show that Balochistan has about 575 registered madrasahs with more than 70,000 students (Government of Pakistan, 2024). However, these figures are likely to be an underestimate of the true magnitude, as is the case with national trends, due to the existence of unregistered institutions in remote and rural areas. In this sense Balochistan can be read as a “niche educational market” in which the demand for religious education is determined not only by ideological

inclination but also by structural need. This is further supported by the high percentage of the youth in the province identified as “Not in Employment, Education or Training” (NEET) which is still significantly above the national average (Pakistan Bureau of Statistics, 2023). Quetta is the primary urban center for religious education in Balochistan at the district level, uniting a variety of institutionalized madrasah networks. Although detailed data at the district level are not available yet, the few existing studies and surveys conducted in Quetta indicate its pivotal role in influencing the educational experiences and outcomes in the madrasa system (Naaz, 2023). Hence the city is an entry point for rural populations seeking an organized religious education and a site where traditional models of pedagogy are challenged by new socio-economic imperatives. However, the lack of detailed data suggests an overall dearth of research on madrasas, particularly in terms of their spatial distribution and local impact. But in Balochistan, students of madrasas are predominantly male, because of both cultural norms and institutional limitations. Most madrasahs in the region are gender-segregated and therefore tend to prioritize male enrolment because of space, funding and societal limitations.

Women’s participation is an undocumented but important (if less visible) part of the madrasa landscape. Female madrasahs tend to be informal institutions, often based in homes and other non-residential sites, and tend to offer programmed in Qur’anic memorization (hifz) and basic Islamic studies. The relative invisibility of these institutions in official discourse points to a gendered gap in both access to and representation in religious education (NCRC, 2025).

In summary, the demographic profile of madrasa education in Balochistan is a nexus of economic necessity, cultural continuity and institutional constraints. These institutions remain a key part of accessible education, especially for marginalized communities. However, the lack of standardized data and their integration into the larger educational ecosystem poses a challenge for policy and academic research.

## 3.2 Reforms in Madrasah

Madrasahs have played a major role in the country’s education scene since the creation of Pakistan in 1947. Originally these were religious schools, concentrating on Islamic theology, Quranic studies and Arabic. The government also recognized this and tried to modernize them in order to fulfil the objectives of national development. In the early decades, madrasahs were permitted to function with minimal interference by the government, although there were attempts to introduce secular subjects such as Urdu and mathematics.

### 3.2.1 Zia-ul-Haq’s Period (1977-1988)

The period of General Zia-ul-Haq was a watershed moment in the institutionalization of madrasahs. The state under Zia began to give more financial support and legal recognition to madrasahs as part of its policies of Islamisation of the state for an Islamic identity. In this period, \*Wafaqs\* (boards of governors) were established during 1983-84 to standardize curricula and supervise examinations. At the same time, the number of madrasahs increased tremendously, some of them funded by foreign money during the Afghan-Soviet War. These reforms emphasized the production of Islamic scholars and clergy, further embedding madrasahs into the sociopolitical fabric of Pakistan (Dr. Fazal. 2019).

### 3.2.2 9/11 post-reforms (2005-2009)

Madrasahs became a subject of greater interest in the post-9/11 world, with fears of extremism around the world. In 2002 the government of General Pervez Musharraf launched a wide-ranging reform process which continued until 2008. The reforms required madrasahs to register, introduced secular subjects such as English and science to the curriculum, and conducted financial audits to trace the source of funding. For the support of madrasahs on the new curriculum Rs. 5.7 billion has been earmarked. However, these reforms were strongly opposed by religious groups and restricted by the lack of adequate resources and infrastructure.

### 3.2.3 NAP (National Action Plan) (2015-2019)

The National Action Plan (NAP) to fight extremism introduced by the government in 2014 after the Peshawar school attack included reforms of madrasahs as a key component. Between 2015 and 2019, there were attempts to bring madrasahs under the Ministry of Education, standardize curriculums and monitor sources of funding more closely. The reforms brought about increased oversight and accountability, but implementation was impeded by resistance from religious authorities and logistical constraints.

### 3.2.4 Issues of Reforms in Madrasah

Efforts to introduce madrasah reforms in Pakistan have been a challenge for decades. Progress has been hampered by resistance from religious groups, limited financial and human resources, and shifting political priorities. However, integrating religious education with secular knowledge is still important to promote inclusivity, counter extremism, and encourage societal development. Future reforms should concentrate on vocational training and skill development for madrasah students, and on continuing dialogue between the government and religious leaders to ensure reforms respect Islamic traditions while meeting modern educational needs. The ultimate success of madrasah reforms is in finding a balance between traditional values and modern aspirations, and in creating an inclusive and progressive framework for the future of the nation.

### 3.3 Tingkat Akademik dan Kurikulum Madrasah

The curriculum of the Pakistani madrasahs, while based on the Dars-e-Nizami framework, has been modified slightly over time and supplemented to meet changing needs. The Dars-e-Nizami curriculum was first formulated by Nizamuddin Sehavi (d. 1748 AD) during the period of the Mughal emperor, Aurangzeb Alamgir (d. 1707 AD). This curriculum was originally intended to prepare people for civil service in the Mughal administration. It includes about 50 books in 18 different sciences and gives a broad base of Islamic and secular knowledge.

The current system of madrasah education in Pakistan was developed in the 19th century and most of the institutions follow the Dars-e-Nizami syllabus. The curriculum covers a range of subjects, including logic, philosophy, rhetoric, dialectic, mathematics, traditional medicine, and Persian and Arabic grammar and literature. The students are first taught to recite the Quran in its original language, Arabic. At the advanced level, the entire syllabus of Dars-e-Nizami is implemented and it focuses on: Quran Recitation: Stress on reciting and understanding Quran in Arabic. What is Hadith and Sunnah? Comprehensive study of the words and deeds of Prophet Muhammad (PBUH). The madrasahs were traditionally considered to be the training centres for the leaders of the Islamic world. The pivot of their education was Islamic law (Fiqh) and its jurisprudence. In addition, madrasahs have also historically functioned as institutions providing free education and assistance to the underprivileged and marginalised segments of society. The madrasah system in Pakistan is a mirror image of the sectarian divide in its society where religious education is influenced by different sectarian ideologies. In Pakistan there are five major Wafaqs (boards) governing madrasahs and each of them represent a major Islamic school of thought (Fiqh) (sumera, 2022). These Wafaqs control the working of madrasahs of their respective sects. The main responsibilities include:

- Supervision over registration of students in the affiliated madrasahs.
- Develop and implement a standardized curriculum for all the madrasahs under their control. To conduct examinations at higher levels to evaluate the knowledge and skills of the students.
- Successful completion of the curriculum will result in students being awarded certificates. The five Wafaqs are semi-autonomous bodies but are regulated and monitored by the Ministries of Education and Religious Affairs. They also coordinate under the umbrella body, Ittehad Tanzeemat Madaris Deenia (ITMD), the central governing body of the madrasahs in Pakistan. The ITMD was established in 2003 to coordinate among Wafaqs and to provide a

single platform for the regulation of religious education (sumera, 2022).

The religious education offered by madrasahs is structured in levels similar to formal education, allowing for a comparable development of knowledge. Wafaqs conduct standardized examinations to test the students' learning after

completion of the prescribed syllabus. The certificates issued by the Wafaqs are a formal acknowledgement of the qualifications of the students and help them to opt for various career options especially in the religious and academic fields. This system, deeply rooted in tradition, remains an important pillar of religious education in Pakistan.

### 3.3.1 Academic Levels of Madrasah According to Wafaq-ul-Madaris

#### وفاق المدارس العربیہ پاکستان کے تعلیمی مراحل

| نمبر شمار | درجات              | المیت داخلہ                    | دورانیہ  |
|-----------|--------------------|--------------------------------|----------|
| 01        | تحفہ القرآن الکریم | ناظر قرآن مجید (صحیح تلفظ)     | تین سال  |
| 02        | تجوید لل حفاظ      | شہادۃ تحفہ القرآن الکریم       | دو سال   |
| 03        | تجوید لل علماء     | شہادۃ العالمیہ                 | ایک سال  |
| 04        | ابتدائیہ           | ناظر قرآن مجید (صحیح تلفظ)     | پانچ سال |
| 05        | متوسطہ             | پرائمری پاس (مساوی استعداد)    | تین سال  |
| 06        | ثانویہ عامہ        | متوسطہ مکمل (سیکنڈری بورڈ) پاس | تین سال  |
| 07        | ثانویہ خاصہ        | شہادۃ اثناویہ عامہ             | دو سال   |
| 08        | عالیہ              | شہادۃ اثناویہ خاصہ             | دو سال   |
| 09        | عالیہ              | شہادۃ العالمیہ                 | دو سال   |
| 10        | دراسات دینیہ       | مکمل                           | دو سال   |
| 11        | مختصات             | شہادۃ العالمیہ                 | دو سال   |

Figure 01: Academic Levels of Madrasah in Urdu Language

### 3.4 Challenges of Madrasah Graduates in Pakistan

Pakistan's unemployment rate climbed to an estimated 8.5% in 2023 as the economy struggled and inflation rose (Dawn, 2023). One of the most pressing problems is the employment crisis, especially among the graduates of madrassas. Less than 10% of the 1.5 million students graduating from about 12,500 unaccredited madrassas find jobs requiring a college degree. In contrast, a large 86% work in mosques, madrassas, or other informal sectors (Farooqui, 2018). The rest of the graduates are either locked in low skilled occupations or are unemployed. This is highlighted in recent studies. 63% of madrassa graduates remained unemployed in 2015-16 (Pakistan Bureau of Statistics (PBS), 2017). Also, a World Bank (2014) report indicated that just one percent of Madrassa graduates found jobs in the formal sector.

#### 3.3.1 Madrasah Graduates: A Misfit Society

Religious schools are institutions with a definite

mission to influence society. Traditionally these schools are predominantly conservative. However in the wake of the Afghan-Soviet war they are more intellectually active and some have shown tendencies towards extremism (Rahman, 2004). There is a growing concern that madrassa curricula are not in line with market needs. The current madrassa curriculum does not meet the needs of modern employment. Such a skills gap puts madrassa graduates at a tremendous disadvantage and limits their access to professional careers. Many people find it difficult to find jobs that match their education, while others take jobs below their qualifications (Dawn, 2023). There are a lot of studies regarding this topic, but there is still a lack of knowledge about the specific problems of madrassa graduates and what needs to be done to help them become involved in the labour market. This real-time problem raises several questions:

- How do the job opportunities for madrassa graduates compare with

mainstream graduates?

- What measures can be taken to bridge this gap?

Many madrassa graduates in Pakistan find it difficult to get jobs because their education does not always meet the demands of the workforce. This partial disconnect between their training and industry expectations limits their career prospects. This study aims to explore the economic challenges faced by madrassa graduates, evaluate job opportunities available to them, and propose reforms to make madrassa education more relevant to market needs (Junejo, 2024).

In recent years, there has been an increased interest among policymakers, researchers and the media about the employability of madrassa graduates (Abdullah, 2024). Supporters say their education gives them valuable skills for careers in education, law, social work and media, although these graduates struggle to find jobs. However, the literature at hand is fragmented and inadequate and there is no comprehensive study on their employability and the factors that determine it.

“Until now madrassas were places of learning and worship and formed the foundation of mainstream education. The bedrock of Islamic education is character development, both morally and intellectually. The madrassa graduates are taught that Allah created the universe and are equipped with the skills to face the challenges of the modern world, while being firmly grounded in the principles of Islam. But it needs to update madrassa education to the modern economic realities so that the graduates can harness career opportunities.

The relationship between madrassa education and employment in Pakistan has been previously analysed, indicating that madrassa education does not provide the critical skills and knowledge required by the modern job market. However, the study also found that madrassa graduates have valuable soft skills such as good communication, strong interpersonal skills and high emotional intelligence that can be an asset in different professional fields. The study recommended that the madrassa education

should be reformed to include modern subjects and vocational training to enhance the employment prospects of its graduates (Naima, 2021).

### **3.4 Space and pedagogical constraints of the traditional madrasah classrooms**

An important but often neglected dimension to the debate on madrasah education is the influence of the built learning environment on educational outcomes. The literature has been quite critical of the limitations of the curriculum and of pedagogical approaches. Much less attention has been paid to the spatial conditions of learning. “Most of the madrasahs in Pakistan, particularly in underdeveloped areas such as Balochistan, are traditional in terms of the classroom setting, the seating arrangement is fixed, the environment does not change much, and the mode of teaching is teacher-centric. These environments are mostly developed to support learning based on memorisation, thus reinforcing the pedagogical patterns already identified in the literature. Such spatial arrangements are common and have important implications for student development. According to educational research, the physical environment of a classroom is an important factor in determining cognitive engagement, attention and learning behaviour (shahjalal, 2024). Traditional classroom configurations are known to restrict interaction, inquiry and cooperative learning by treating students as passive recipients of knowledge. This spatial rigidity is consistent with the earlier cited dependence on rote memorisation (Fair, 2008), further curtailing the development of analytical reasoning, creativity and problem solving skills among students.

In addition, most madrasahs are typically characterised by congestion, poor ventilation, insufficient lighting, and the absence of recreational or transitional areas, potentially resulting in physical discomfort and psychological disengagement. (shahjalal, 2024) Such environments can, for students from predominantly lower and lower-middle class backgrounds, reinforce a sense of restriction and marginalization. The lack of spaces that foster dialogue, reflection and social interaction

hinders academic growth as well as the development of confidence, communication skills and adaptability. The traditional classroom setting is thus not only a neutral backdrop but also an active element that shapes and often restricts the overall learning experience.

### **3.4.1 Current Educational Paradigms and Transition to 21st Century Learning Environments**

Contemporary educational discourse has, instead of traditional models, highlighted a move to 21st-century learning contexts that reframe the nexus of space and pedagogy and student engagement.(yonit, 2016) Such environments are identified by a move away from teacher-led instruction towards learner-centred methodologies where students are actively participating in the creation of knowledge. Classrooms are dynamic and malleable spaces, not static, closed spaces, and they allow for different types of learning activities such as collaboration, discussion, experimentation and independent inquiry (Organization for Economic Co-operation and Development [OECD], 2018; World Bank, 2020)

But the key to 21st-century classrooms is not simply the presence of digital technologies, but the flexibility and responsiveness of the spatial design. Learning spaces are designed for all levels of engagement from individual focus to collaborative interaction. This flexibility in space leads to a more inclusive and stimulating learning environment, which helps students to develop important skills such as critical thinking, communication and problem solving (Mualla, 2012).

Empirical research in education today indicates that such environments can substantially enhance student motivation, engagement and overall academic performance, especially when paired with interactive and inquiry-based pedagogical techniques. This is a paradigm shift in architecture, away from the rigid, hierarchical spatial arrangements to more fluid, human-centred designs. The classroom is no longer seen as a monolithic entity, but part of a greater learning ecosystem. Both formal and informal spaces are part of the learning experience. The

movement is an appreciation of space as a constitutive dimension of pedagogy that can inform behaviour, interaction and intellectual development.

### **3.4.2 Recontextualizing 21st Century Classrooms in Madrasah Education**

The application of 21st century learning principles in madrasah education should be understood not as a loss of traditional values, but as a contextualized adaptation of the historical ideals of Islamic education. As mentioned earlier, traditional madrasahs were not limited to religious studies but included a range of intellectual endeavors, fostering a comprehensive perspective on education. The challenge today is therefore to re-interpret that legacy in ways that respond to the socio-economic realities of today, and at the same time remain grounded in Islamic epistemology.

The introduction of innovative learning environments becomes all the more crucial given that the poor in Balochistan have madrasahs as their main educational avenue. Often the students in these institutions undergo multiple deprivations such as limited exposure to diverse knowledge systems, and limited opportunities for personal and professional development. Madrasahs can overcome these deficiencies academically and psychologically through spatial configuration that promotes interaction, exploration and engagement . Such environments may encourage a feeling of agency in students and help them to engage with religious and contemporary forms of knowledge with more confidence (“Human, Technologies and Quality of Education, 2023” 2023). Furthermore, flexible and inclusive learning spaces could also help address social isolation, which is common in residential madrasah systems, and contribute to a more balanced and holistic educational experience. The spirit of Madrasah education must be retained and the functional and intellectual scope widened. It is important that such interventions are carefully calibrated with the cultural and religious sensitivities.

### **3.4.3 Architectural Implications and the Demand for Purpose-Built Madrasah Environments**

The discussion of educational reform in the madrasahs is therefore inseparable from the parallel discussion of architectural reform. Madrasah buildings, whether repurposed or newly constructed, frequently fail to meet the spatial requirements of contemporary education. In response, the notion of a madrasah designed for a specific purpose offers a valuable lens through which the architectural planning is purposefully linked to the pedagogical goals (Saleh, 2016).

The approach is concerned with the design of environments that can host traditional Islamic learning and modern educational practices through spatial diversity and adaptability. Flexible classrooms, skill developing facilities, and tech-enabled learning spaces can do wonders to the functional capacity of madrasahs.

The transformation of madrasah spaces into 21st century learning spaces becomes more meaningful when integrated with skill development and vocational training initiatives. One of the major challenges as seen in the previous sections is the low employability of madrasah graduates in the formal job market. Curricular reform and vocational programs have been suggested as possible solutions, but their success is closely tied to the environment in which learning occurs. Innovative learning spaces provide the infrastructure necessary for delivery of practical and skill-based education, which allows students to acquire competencies beyond traditional religious education (Yonit, 2016).

These settings provide experiential learning and practical experiences that foster the development of both technical and soft skills, strengthening students' ability to adapt to various professional environments. This integrated model of education is consistent with the current recommendations in the literature that call for the inclusion of contemporary subjects and vocational training, and it extends the discussion to the spatial dimension of learning. This approach provides Balochistan

students with an opportunity for greater economic independence and social mobility (Junejo, 2024).

The combination of religious knowledge, modern education and practical skills prepares graduates to contribute more meaningfully to the wider socio-economic environment and thus reduce the marginalisation that has traditionally been associated with madrasah education. The reconfiguration of learning environments is key to transform the madrasahs from isolated institutions to active agents of social development in this regard.

### **3.5 Conclusion**

This represents a paradigm shift from seclusion to inclusion, a fusion of modern scholarly disciplines and time-honoured religious teaching. Madrasahs built for this very purpose, with modern facilities (digital labs, vocational centers, etc.) change the learning milieu from a theological zone to a center for all-round development. The introduction of short-term, high-impact vocational training that gives students practical skills they can learn quickly is at the heart of this transformation. Evidence from Pakistan's vocational programs suggests that such interventions can have large economic gains. For example, a large-scale vocational study revealed that the employment rate was increased by almost two times (1.94x) after technical training (Ahmed, 2020). These skills offer a "learn-and-earn" path that enables students to achieve financial independence much more quickly than through traditional education. But most Madaris still don't have these technical components and some studies show single digit percentage of vocational provision despite high student interest. These skill sets are meant to erode the "professional wall" between religious and secular spheres. However, one important research gap is that empirical evidence linking these rapid-response vocational models to sustained professional resilience and real-world labour market mobility remains largely anecdotal.

#### **3.5.1 Social Dignity and Psychological Resilience**

The integration may be a possible trigger to

increase individual confidence and psychological resilience. Existing research documents traditional rote-heavy pedagogies in madrasahs often produce identifiable emotional stress, anxiety and identity crises (Naaz, 2023). When madrasah students have the same institutional legitimacy as their counterparts in secular systems, the age-old social stigma associated with religious education can start to be eroded. When these barriers are broken down students take ownership of their learning and can enter the mainstream world without the baggage of professional inadequacy.

The hypothesis presumes that a student who perceives his value to the state and society is much more likely to have a constructive, moderate view. Yet, research often stops at descriptive policy analysis or ideological debates about reform. There is certainly a lack of longitudinal data to assess the impact of these specific structural changes on the mental health, confidence and identity formation of the students themselves. (Naaz, 2023)

### **3.5.2 Societal Impact and the “Dual Literacy” Advantage**

Finally, the empowerment of these students brings about a deep social change. As dually trained persons, they are able to serve as unique intermediaries that traverse moral-ethical frameworks and technical-professional landscapes. This “dual literacy” empowers them to contribute to society as ethical doctors, engineers and civic leaders. Mainstreaming of the madrasah system through the proper allocation of resources and skill-based learning

with a narrowing of focus on the specific regional context of Quetta, Balochistan, ends the “othering” of these students.

Tracer studies in Balochistan have shown that technical training can be a vehicle for socio-economic empowerment, but the urban-rural disparities in accessing it pose a major hurdle. But the research gap this study addresses is the transition from theoretical benefits to measurable outcomes, specifically how this unified workforce can replace the “othering” of these students.

Paradigms influence the perceptions of local employers and foster social harmony in historically marginalized regions like Balochistan.

## **4. Methodology**

This paper employs mixed-method approach, mainly qualitative with descriptive quantitative analysis for support, to investigate perceptions and spatial conditions of madrasahs in Quetta. Data were collected through unstructured questionnaires, semi-structured interviews and field observations. The questionnaire provided a snapshot of student, parent, teacher and community member views, while the interviews provided a richer perspective of individual experience. Visits to selected madrasahs were made to observe the architectural and environmental conditions first hand. The participants were selected by purposive sampling to ensure the relevance and informed input. Data were analyzed using thematic analysis and supported and reinforced by descriptive statistics.

## 5. Results and Discussions

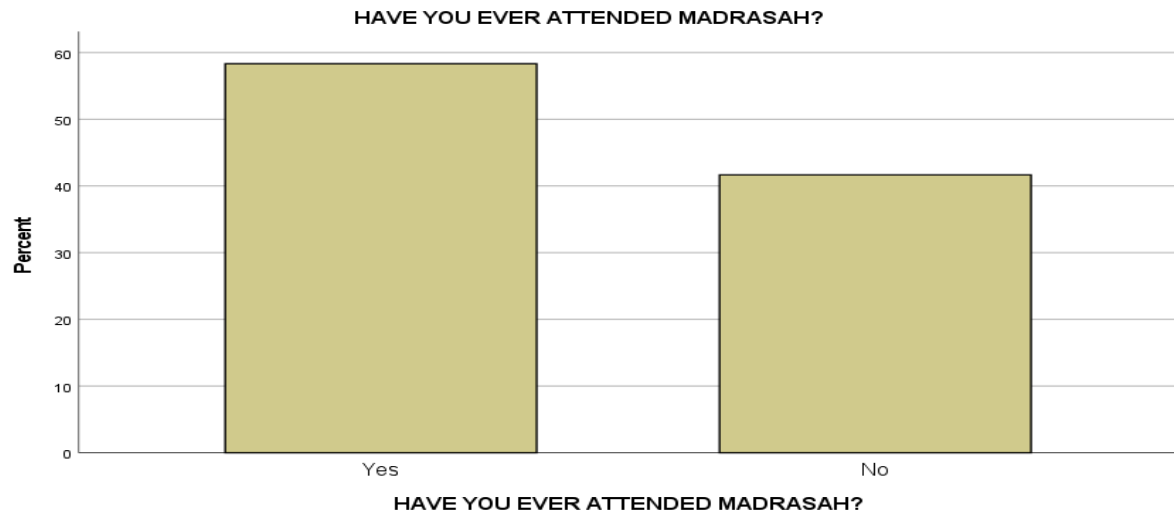


Figure 2

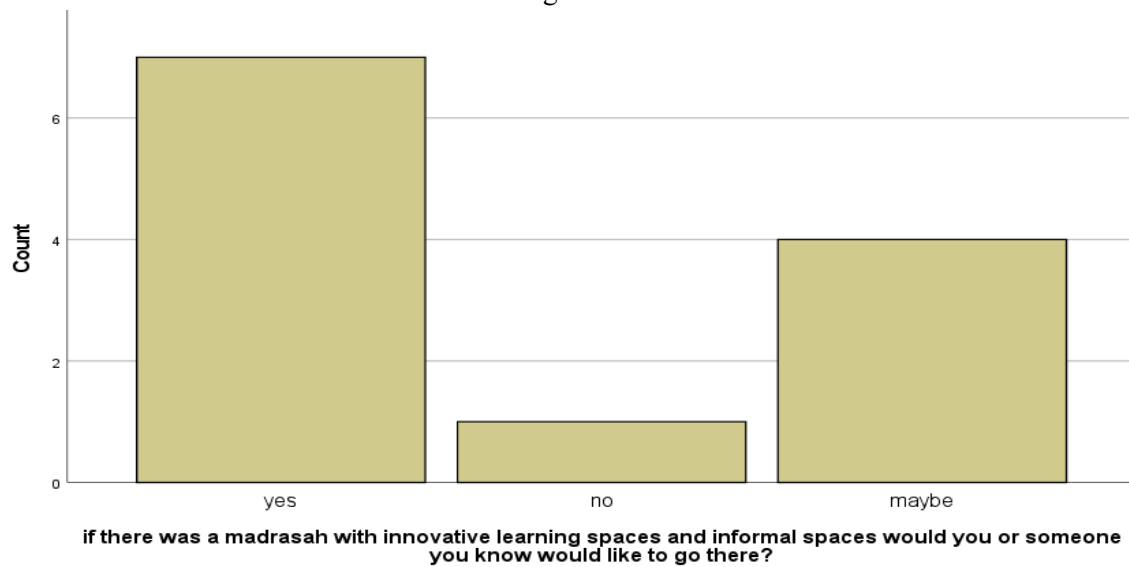


Figure 3

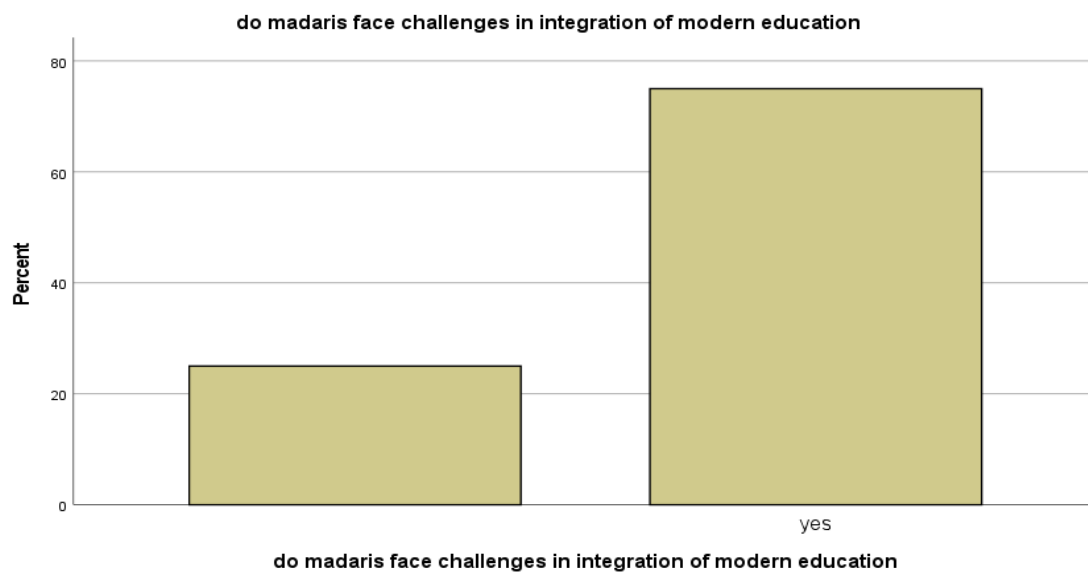


Figure 4

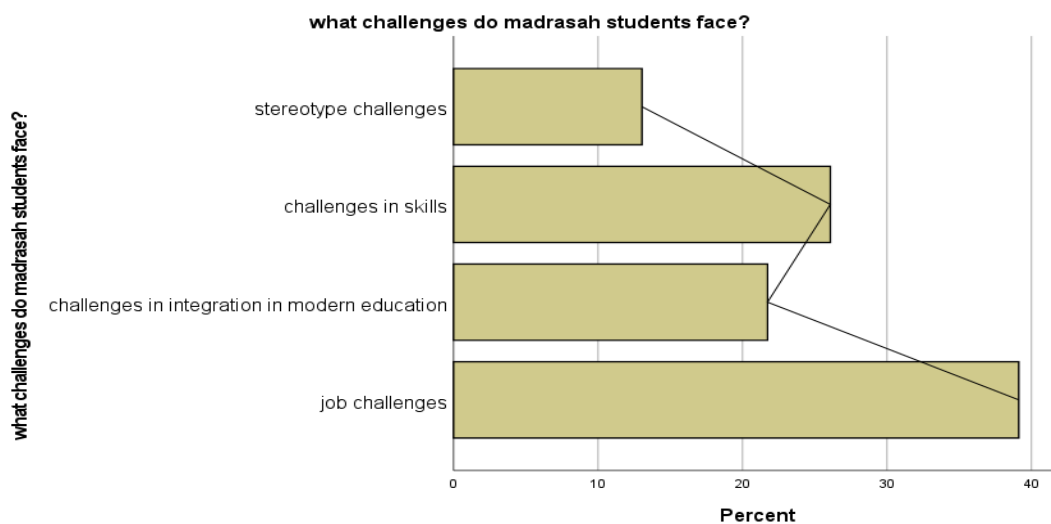


Figure 05: Survey Results (Challenges faced by Madrasa Students)

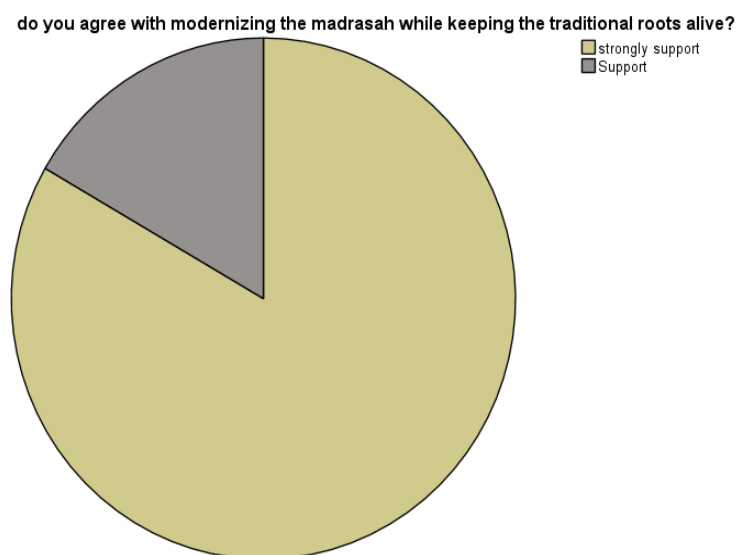


Figure 6: Survey Results (Comparative Analysis between educational systems as from students)

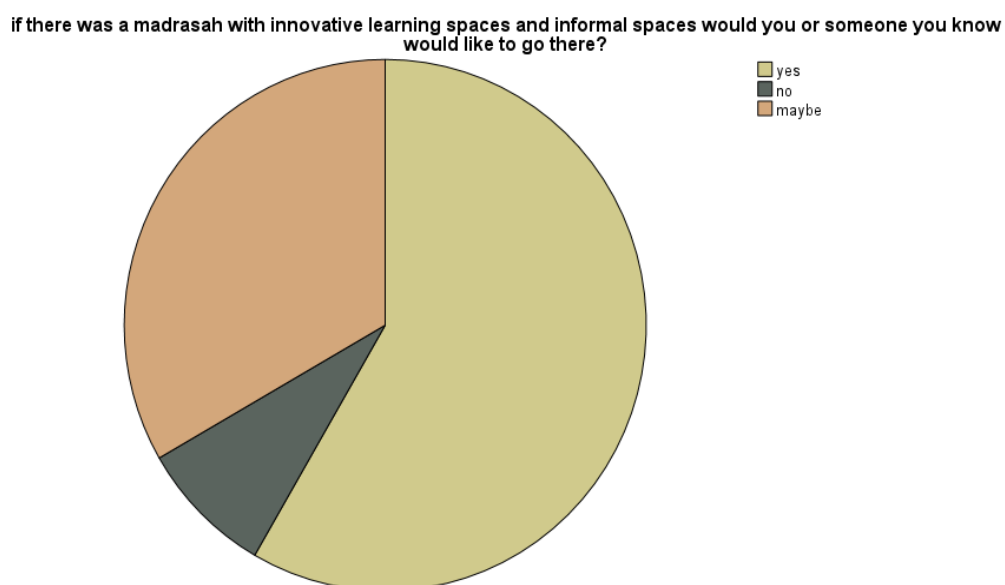


Figure 7: Survey Results (Madrasa Typologies)

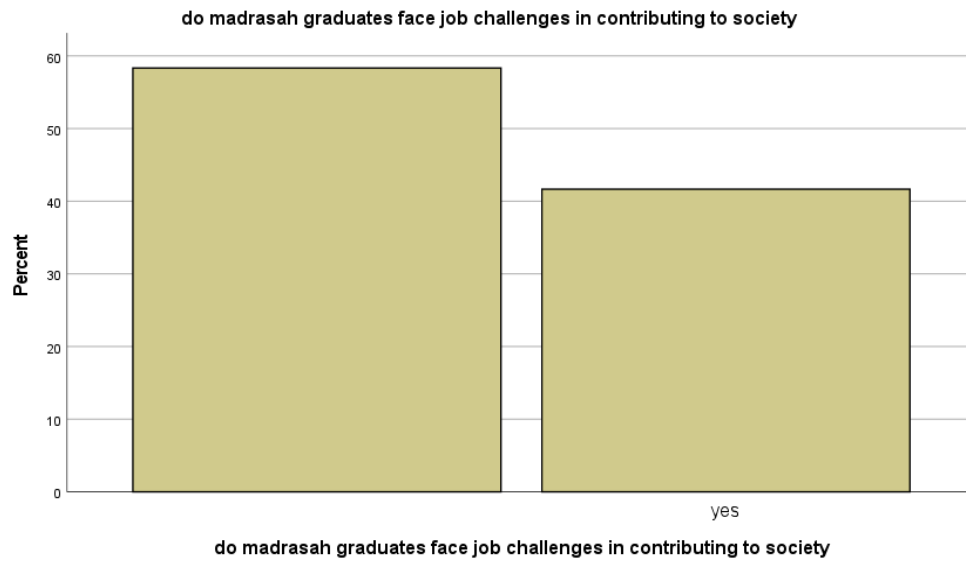


Figure 8: Survey Results (Job challenges faced by Madrasa graduates)

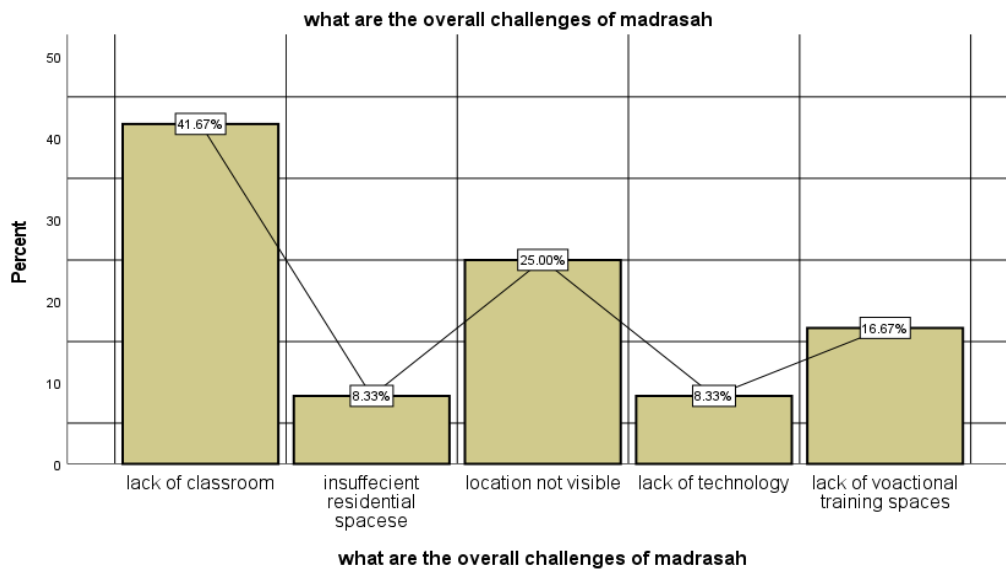


Figure 9: Survey Results (Challenges faced by Madrasas)

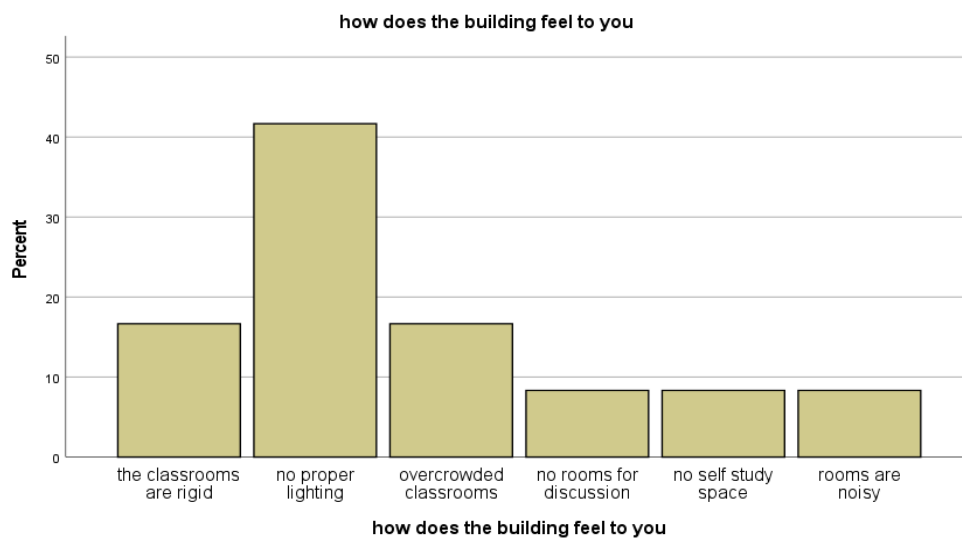


Figure 10: Survey Results (Building ambiance understanding aspects)

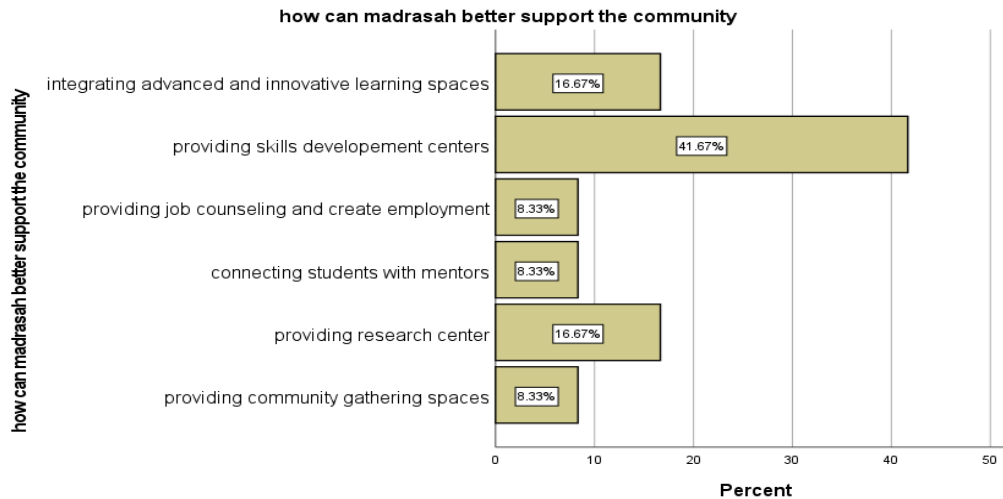


Figure 11: Survey Results (Madrasa education support assessment)

## 5.1 Discussions

The study shows a great spatial-pedagogical disconnect in the madrasah education system of Quetta. The study shows that the problems faced by the graduates are not due to intellectual incapacity, but due to systemic constraints embedded in the curriculum and the built environment. Madrasahs continue to play an important socio-religious role by providing a residential, community-based model of education, but they are still structurally and pedagogically not in tune with the needs of the contemporary socio-economic environment. The findings (Figure-7) reveal that the current architectural typology, with its inflexible classroom layouts, poor environmental quality and lack of spaces responsive to technology, actively restricts cognitive development and limits opportunities for skill acquisition. This is a condition the study refers to as spatial stativity, and it is compounded by what participants called exposure poverty. Limited engagement with modern tools, digital platforms and diverse learning contexts. These factors combine to create a cycle of institutional disengagement that produces graduates with strong intellectual and ethical foundations but who remain on the margins of the formal labour market.

Importantly, the results reveal that the marginalisation of madrasah students is as much a spatial issue as it is an educational one. The

built environment is not only the context for learning but also affects the depth, quality and relevance of learning.

The prevailing spatial model of madrasah is more of preservation than progressive thus, limiting its capacity as a platform for holistic development. To bridge this gap, the study proposes a paradigm shift towards purpose-built madrasah complexes based on an integrated “Live, Learn and Earn” framework. Figure 8 reveals that people feel need of skill development spaces and integration of innovative learning spaces. The model envisions the madrasah as a hybrid institutional typology that includes vocational training, digital literacy and production-related activities into its architectural program in addition to religious education. Such a transition requires a combination of agile learning environments, technology enabled hubs and economically productive space that together increase the functional capacity of the institution. This change has far-reaching socio-economic implications, particularly for Quetta and the broader Balochistan area.

Figure 3 and 4 shows clearly that the Madaris in Quetta are not having the integration of modern education and people are very open to advanced and innovative learning spaces. Madrasahs can become proactive drivers of local development, transforming from isolated religious enclaves

into dynamic, technology-based environments. Such a transition restores the social dignity and employability of graduates, who can become meaningful members of society without losing their cultural and religious identity.

In the end, the study suggests that architectural intervention is not an add-on, but a necessary part of educational reform in this context. Closing the spatial–pedagogical gap is needed to unlock the hidden potential of a large but unrepresented population. This transition from passive inward-looking spaces to active exposure-oriented spaces is an urgent and critical step towards a more resilient and inclusive educational future in Quetta.

## REFERENCES

- Afia Mushtaq, Ramla Siddiqui naa(2024). Religious education: Analysis over the years. October 2014. Journal of Islamic Thought and Civilization 04(02):58-70DOI: 10.32350/jitc.42.05
- Ahmad, A. (2020). Tracer Study of Socio-economic and demographic Impacts of Technical and Vocational Education and Training (TVET) for Women in Baluchistan. DOI: 10.35484/PSSR.2020(4-III)58
- Aliya Ayoub, & Khalida Naaz, (2023) An analysis of madrasa education and its impact on student's confidence level and character building.
- Andrabi, Tahir; Das, Jishnu; Khwaja, Asim Ijaz; Zajonc, Tristan. Religious school enrollment in Pakistan : a look at the data (English). Policy, Research working paper series
- Bhatti, Omer Shujat, and Afshan Huma. 2023. "Potential Usefulness of Video Lectures as a Tool in Improving the Online Learning at the Post Graduate Level : A Case for Design Domain Students." International Journal of Distance Education and E-Learning VIII(II):1–8.
- Bhatti, Omer Shujat, Architect Saad Mujahid, Engineer Nuaman, and Ishfaq Mughal. 2024. "Unveiling Climate Consciousness : Assessing Perceptions Based on Social Media and Mass Communication Strategies among Balochistan University Students." Journal of Development and Social Sciences 5(2).
- Dr. Fazal Rabbi & Dr. Shahid Habib (2019). Discourse on Madrassa Education Reform in Pakistan: Challenges to State Narrative and its Implications. NUML/journals. Vol. 8
- Erkilic, Mualla. (2012). Inclusive Schools And Urban Space Diversity: Universal Design Strategies In Use. METU Journal of the Faculty of Architecture. 29. 193-206. 10.4305/METU.JFA.2012.1.11.
- Farooqui, N. (2018). Impact of financial aid as scholarships on educational attainment and quality of life among Muslim adolescent girls in madrasas. International Journal of Health & Medical Science.
- Khalid, S. (2014), Challenging Preconceptions: Understanding the Employability of Madrassa Graduates in Pakistan. Development in Practice, 24(7), 899-910
- Mohsin Bashir & Shoaib Ul-Haq, (2019). Why madrassah education reforms don't work in Pakistan. Third World Quarterly. DOI: 10.1080/01436597.2019.1570820.
- Muhammad Nosheedullah shah, Naeem Ullah, Fahad khan, Omer Shujat Bhatti. 2025. "From Neglect To Necessity : Documenting & Rethinking Urban Voids Transformation Need In Peshawar City." Competitive Research Journal Archive 3(03):39–59.
- Nadeem ul Haque, Faheem Jehangir Khan. (2025) RASTA: Local Research, Local Solutions: Human Capital and Opportunities, Volume XIII
- Nadia siddiqui,(2017), Parental education as a determinant of school choice: A

- comparative study of school types in Pakistan.
- Naima Qureshi, Qudsia Kalsoom, I. Khalil. (2021). perceived life skills development- an outcome of madrassa education system in Pakistan. *journal of islamic thought civilization*. DOI:10.32350/jitc.111.12
- Nissim, Yonit & Weissbluth, Eyal & Scott-Webber, Lennie & Amar, Shimon. (2016). The Effect of a Stimulating Learning Environment on Pre-Service Teachers' Motivation and 21st Century Skills. *Journal of Education and Learning*. 5. 29. 10.5539/jel.v5n3p29.
- Rahman, T. (2004). *Denizens of Alien Worlds: A Study of Education, Inequality and Polarization in Pakistan*. Karachi. Oxford University Press
- Rashid, A.. *Untitled [Regarding Pakistan Madaris Registration Bill 2024]*.
- Samiullah. Rabail Babar (2021). Impact of Vocational Training on Employment and Earnings of Federally Administered Tribal Area's Youth in Pakistan. DOI: 10.5281/zenodo.5760249.
- Sarah Khan, & Andrew Seltzer, *The impact of fundamentalist terrorism on school enrolment: Evidence from North-Western Pakistan, 2004-09*.
- Shafiq, Muhammad & Azad, Abdul & Munir, Muhammad. (2020). *Madrassas Reforms in Pakistan: A Critical Appraisal of Present Strategies and Future Prospects*. 22. 152-168.
- Shahjalal, Md & Al Fidah, Md Fuad & Sagar, Soumik Kha & Bari, Farzana & Hossain, Md & Hawlader, Mohammad & Khan, Md Abdullah Saeed. (2024). *Madrassa student's health-related quality of life and its associated factors: a cross-sectional study from Bangladesh*. *Scientific Reports*. 14. 10.1038/s41598-024-65677-y.
- Shahzad, M. A., Ur Rehman, H., Saeed, S. K., & Ehsan, A. (2019). *Islamic finance education and the curriculum of Deeni Madaris (Religious Seminaries): An exploratory study*. *Islamic Banking and Finance Review*, 6, 59–79.
- Shoaibullah, Amanatullah, (2025), *Understanding the role of madrassas in Pakistan's educational landscape: A data-driven perspective from Google Trends*.
- Sumera Zafar. (2022). *Madrassah Education System: Evolution and Contemporary Challenges*. *Journal of Development and Social Sciences*. Vol. 3
- Syed sibtain Hussain, (2018). *Religious education and extremism in Pakistan: From Deobandi militancy to a rising Sufi fanaticism*.
- Wahab (2025), *The consequences of Pakistan's counterterrorism policies: Socio-cultural and political transformation in tribal districts*.