

Design Considerations for Learning and Living Centre for Scholars : Connecting Between the City and the School

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Abstract: *This study examines the architectural considerations for a Learning and Living Centre for scholars that intends to create a seamless connection between the urban environment and educational institutions. As cities transform into information and innovation hubs, there is a rising demand for venues that stimulate collaboration, experiential learning, and intellectual development. This research examines the main design aspects required to create a successful hub for scholars that connects the city and the institution. The research incorporates qualitative analysis and case studies of current Learning and Living Centres. The analysis reveals crucial elements like location, accessibility, architectural design, and technology integration. This project intends to give a complete framework for creating a Learning and Living Centre that effectively links scholars to the urban environment by analysing successful examples from across the world. The findings contribute to the disciplines of architecture, urban planning, and education by emphasising the need of designing environments that promote continual learning outside the typical classroom setting.*

Keywords: Design considerations, Learning and Living Centre, Scholars, City, School, Connectivity, Urban environment.

I. INTRODUCTION

The design considerations for a Learning and Living Centre for scholars that successfully integrates the city and the school are becoming increasingly crucial in today's ever-changing educational environment. As cities change into knowledge and innovation hubs, there is an increasing demand for dynamic spaces that connect academic institutions with the urban environment. These centres seek to give students with an immersive learning environment that combines classroom instruction with chances for real-world participation, collaboration, and experiential learning.

The conventional paradigm of education, which is restricted to the walls of the school, is gradually giving way to a more holistic approach that emphasises the need of integrating students into the larger community. A Learning and Living Centre acts as a focal point for scholars to live, study, and connect with the city, supporting the seamless blending of academic pursuits and urban experiences(Siraj et al., 2014).

To ensure its efficacy and usefulness, the design of such a facility requires careful consideration of several variables. From selecting an ideal location that provides easy access to educational resources and cultural amenities to constructing architectural spaces that enable varied learning activities, each factor plays a vital role in fostering intellectual progress, cooperation, and personal growth.

This study intends to investigate the design aspects required to create a Learning and Living Centre for students that successfully links the city and the school. This research aims to give architects, educators, and urban planners with a complete framework for designing spaces that empower scholars, stimulate cooperation, and bridge the gap between academic institutions and the urban environment by studying successful examples from across the world(Accessibility Guidelines for Bus Terminals and Bus Stops, n.d.).

II. LITERATURE REVIEW

The literature on design considerations for Learning and Living Centres for scholars that effectively connect the city and the school offers invaluable insight into the creation of lively educational environments that bridge the gap between academic institutions and urban areas. The following is a comprehensive result of a review and analysis of available research and case studies:

Importance of Location and Accessibility:

Several studies underline the necessity of locating Learning and Living Centres in the ideal location. Accessibility and integration into the urban environment need close proximity to educational institutions, cultural facilities, and public transit networks. Additionally, the site should take into account the availability of collaboration spaces, research institutions, and possible industrial partners in order to improve academic engagement and experiential learning possibilities(Zseqi_document, n.d.).

Architectural Design and Learning Spaces:

The design of the physical spaces within the Learning and Living Centre is vital for creating an environment that fosters collaboration, creativity, and interdisciplinary learning. Flexible and adaptable spaces that accommodate various teaching methods, group discussions, presentations, and hands-on activities are essential(Venkaiah Naidu, 2019). The integration of natural lighting, green spaces, and ergonomic furniture contributes to a healthy and stimulating learning environment. Furthermore, the inclusion of communal areas, such as cafes, lounges, and study nooks, encourages informal interactions and socialization among scholars(Kisan & Sangathan, n.d.).

Integration of Technology:

Literature highlights technology integration as a vital part in designing Learning and Living Centres. The center's state-of-the-art digital infrastructure, which includes high-speed Internet access, interactive displays, and virtual collaboration tools, promotes communication between researchers, educators, and resources outside the center's physical limits. In addition, technology facilitates blended learning strategies, provides access to online courses and educational materials, and promotes the research of developing subjects and digital skills(Enter Title Here Enter Date Here Education for Sustainable Development: A Study of Opportunities and Linkages in the Primary and Post-Primary Curriculum, 2018).

Community Engagement and Cultural Exchange:

Community participation is essential to the success of Learning and Living Centres. Establishing collaborations with surrounding communities, companies, and organisations improves the center's social impact and learning environment. Collaborative initiatives, community engagement programmes, and cultural exchanges give researchers with opportunity to comprehend and address local issues while providing their experience and knowledge. This activity also builds a sense of belonging, promotes diversity, and promotes cross-cultural understanding and learning.

Interdisciplinary Collaboration:

Literature emphasises the significance of interprofessional collaboration within Learning and Living Centres. By bringing together experts from many fields, these institutions foster innovation, creativity, and holistic approaches to problem-solving. Designing facilities that permit multidisciplinary connections, such as collaborative research laboratories, project rooms, and common areas, promotes the flow of ideas and allows researchers to cooperatively address difficult social concerns.

Sustainable and Green Design:

A increasing amount of research stresses the use of sustainable and environmentally friendly design elements in Learning and Living Centres. The use of renewable energy sources, efficient waste management systems, and sustainable construction materials decreases the center's ecological impact and fosters environmental awareness among

researchers. Incorporating outdoor areas, rooftop gardens, and green walls further strengthens the connection between nature and education, which contributes to the scholars' general well-being (Campbell et al., n.d.).

The relevance of location, architectural design, technological integration, community participation, multidisciplinary cooperation, and sustainable practises are emphasised in design considerations for Learning and Living Centres connecting the city and the school for scholars. The use of these factors can provide new educational settings that empower scholars, promote cooperation, and bridge the gap between academic institutions and the urban environment. Future research and case studies can delve further into these ideas and provide more insight into effective design solutions for thriving Learning and Living Centres (Day et al., 2014).

III. CASE STUDIES

3.1. Montessori College Oost, Amsterdam

The plan demonstrates the urban character of the circulation zone. The enclosed learning units, such as classrooms and laboratories, are located on the building's perimeter, creating a central area that functions as a form of cultural commons. The building's levels are separated to optimise visual linkages and spatial depth. concentrated circulation boosting social connections (Community Spaces in Schools 13452_2__1577012043, n.d.). Every location is flooded with natural light. The enclosed learning units, such as classrooms, provide for a range of activities, as does the central zone for open learning. The enclosed learning units, such as classrooms, provide for a range of activities, as does the central zone for open learning. Textures of wood, metal, glass, wood, and aluminium, etc. The steps have inventively integrated tables and chairs. The central area is designated for social gatherings. The school designed by Ar. Herman Hertzberger is characterised by its adaptability and urbanism. The central area can serve a variety of social functions.

3.2. Servete Maci, Albania

A semi-internal courtyard acts as a dynamic public place that allows pupils to enter and depart the school through a secure barrier. The classrooms are arranged such that they face the inner courtyard to ensure a peaceful learning environment. The corridors are located near the building's perimeter. The corridors are located toward the building's perimeter to maximise natural light. As well as a semi-internal courtyard, lively classrooms are the finest learning environment. Textures of Yellow, Blue, Red, Concrete, Glass, and Wood. Concrete, Metal, Wood, and Glass (2 Publication of Model Bulding Bye- Laws for Urban Ares, n.d.). After the seats, the elevated platform's stairs are the second most popular. Courtyard and interior court are the building's spirit. It contains a gymnasium, an auditorium with a capacity of 140 people, a library, and a courtyard, allowing for a smooth transition into a community centre after school hours (Advisory_12_-_smart_classrooms, n.d.).

3.3. Discovery Elementary School

The nation's largest zero-energy school. Through daylighting and site integration, the building requires minimal energy. Additionally, the experiment showed rainwater collecting. The school's layout facilitates a seamless blend of design, sustainability, and education. The school's signage reflects its increasing curriculum and sense of self. The project celebrates light in numerous ways, culminating in a rooftop solar lab where students may perform ongoing experiments in real time. Outside of classrooms, glass expanses and expanded learning spaces provide discreet security measures. Orange, Purple, Blue, Neon, Green etc. Turf, Brick, Stone, and Wood. Vinyl, plastic, brick, stone, and other materials. Inside the school, there are a variety of imaginative, communal seating areas for everyone to utilise. Spaces that may be altered depending on the activity (Rangaraju et al., 2012).

IV. DERIVED DESIGN CONSIDERATIONS

- The courtyards idea must be the foundation of the school. Additionally, campus-style planning should be observed.
- The classrooms are hexagonal and measure 55 to 70 square metres. In size.
- Interior Education Outdoor meeting areas and leisure zones should be incorporated into the planning of places.
- Minimum corridor width should exceed 1,8 metres. It can range from 2.4 m to 3 m to improve circulation.
- Spaces should get adequate sunlight and natural ventilation.

- There must be outside learning environments. Classrooms alone are insufficient for enhanced learning.
- Children prefer colourful environments than white classrooms. Therefore, places must be coloured in accordance with pedagogy.
- Materials can be purchased locally if they are available. Additionally, textured areas are more enjoyable.
- As a result of modernisation, there are countless material alternatives available for use in design programmes.
- Furniture plays a crucial part in the transformation of any environment. We can utilise bold and colourful furniture that is appropriate for students.
- There is a demand for communal areas and yoga rooms. Atriums etc. a Even a well-designed stairway may serve as an ideal gathering spot.
- Flexible rooms in schools can have several advantages. Encouraging Collaborative Learning, adjusting to Different Teaching Styles, and fostering Creativity and Innovation are a few examples..

V. CONCLUSION

In conclusion, the design considerations for a Learning and Living Centre for scholars that strives to connect the city and the school are crucial for developing a dynamic and engaging learning environment. Location, accessibility, architectural design, integration of technology, community participation, and promoting social contact and multidisciplinary cooperation have been identified as essential success criteria for such a centre. By selecting an appropriate location inside the city, the Learning and Living Centre may build a physical presence that improves scholars' access and encourages connectivity with the surrounding urban environment. Architectural design plays a key part in the creation of functional environments that encourage interaction and support a variety of learning activities. The use of technology advances permits the introduction of creative teaching aids and enhances scholar connectivity with the digital world.

Community involvement is essential to the success of the Learning and Living Centre because it generates a feeling of belonging, promotes cultural interaction, and creates a platform for cooperation between researchers and the local community. Increasing social contact within the centre increases the learning experience and facilitates intellectual development. In the design of the Learning and Living Centre, the notion of interdisciplinarity is of utmost importance. By bringing together experts from different fields, the centre provides a magnet for interdisciplinary interchange, therefore stimulating innovation and fresh ideas. This study highlights the relevance of developing Learning and Living Centres that extend beyond the traditional bounds of schooling. By embracing the aforementioned architectural principles, these centres may successfully bridge the gap between the city and the school, producing dynamic places that encourage students to connect with their environment, accept multiple ideas, and make significant contributions to society.

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