

Connectivity Of Spaces At Campus Level In Institutional Buildings

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Article Information

ABSTRACT

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The aim of the research is to identify various methods of implementing connective design strategies in campus planning in institutional buildings. The interactive spaces, playgrounds, seating spaces, landscape, pedestrian pathways and vehicular pathways play a very important role in development of social interaction and communication. These spaces, if designed well, which are easily accessible to adjacent buildings and related spaces on campus, can create a healthy and collaborative environment in campus. A good design for campus is to enhance campus life of students, staff and visitors, as well as to promote student's social interaction and development. The design strategies can be used in campus design to develop spaces efficiently. The paper further consists of the case studies of various campuses of educational buildings in India and their analysis of how these campuses have been implemented with different strategies and identify which strategies can help to make campus life a better experience for users. The research consists of reviews of students related to their personal experience on campus by small surveys conducted online.

Keywords: Campus design, Connectivity of spaces, Social development, Interactive space.

1. INTRODUCTION

Students spend most of the time in college, so campus plays a very important role in a student's educational journey. Students come from various cities, backgrounds, cultures, so students crave variety and a strong sense of community, hence their college campus is where they will come together for many events through their course. A well designed campus encourages interaction among students, promotes a healthy environment and also contributes to their social growth and development.

Creating warm, welcoming, inviting spaces helps students engage with one another and

creates friendly relationships between them. If there are not enough comfortable areas for students to relax and hang out after class or spontaneously meet up, they may struggle to make connections. Making campuses easy to access is one more important thing in planning of the campuses. The best institutional campus design is one that seamlessly connects every building on campus. The good connectivity of vehicular and pedestrian pathways all over the campuses that are easily accessible is an essential point to incorporate. The campus is not only important for students, it is also important for the staff and visitors. Every person on campus should feel connected to the spaces

around them. Hence there is a need to integrate good strategies in campus design to make them better places for learning and exchange of ideas and interaction. In this both functional and visual factors should be taken care of. For this student's point of view has to be collected and analyzed, to understand the pattern and working of these spaces. The paper puts forward some case studies in which various strategies are identified that can be used in campus design in institutional buildings.

2. LITERATURE REVIEW

As gathered from the various literature studies, it is seen how important campus designing is to the overall development of students who are the primary users of these campuses. Right from helping to develop social interaction among the school students to making a platform available to higher education students to share their knowledge, campuses and various designed spaces on the campus play a crucial interactive role.

As stated in Paper 1 "Campus Design and Social Development", the designs of schools and colleges have now changed and more emphasis is given to developing interactive spaces- organically developed on-site or a specialized area for the same. Studies have shown how the adjacency of the classroom to the open space or interactive spaces has encouraged the student's interaction. The campus environment can influence student satisfaction, engagement, and academic performance and overall bring student's perception of campus design elements such as architecture, landscape, and open spaces can, have a significant impact on their, motivation to attend and remain enrolled in an institution. Another research by Author of Paper 2 Campus Planning is based on site observation and questionnaires to 230 students of ITB, Indonesia. The respondents are randomly selected from a cluster of buildings from the west and east part of the main axis that gather in open spaces and have individual or social activities. The observation is documented by a series of pictures and the student's behavioral setting ideas conducted in photographs. The

result shows that open spaces become better places to attract and retain students to gather and meet each other. Such research and literature show that the campus' physical environment plays a critical role in promoting student's success & well-being in higher education institutions. Moreover, campuses should prioritize human comfort needs in designing the architecture of buildings to create a friendly & welcoming environment.

A few suggestions and campus design strategies gathered from the literature:

- 1) Small courtyards
- 2) Benches under tree shade
- 3) Landscape features in indoor play areas
- 4) Appropriate selection of landscape street furniture
- 5) Selection of plants that enhances people's mood
- 6) Dedicated pedestrian spaces
- 7) Designed gateways and entrances
- 8) Orientations of the building with respect to sun and wind
- 9) Water features
- 10) Sculptural elements

With these points, the first thing that should be thought is how to give a good, functional, aesthetically pleasing, economical and pleasant campus that is friendly and welcoming to our future generation.

3. METHODOLOGY

The online survey was conducted in the form of Google Forms that was floated to alumni and present students of the shortlisted educational campuses. The 3 shortlisted campuses were – School of planning and Architecture Bhopal, Centre for Environmental Planning and Technology Ahmedabad and Sir JJ College Of Architecture, Mumbai.

Prior to generating the form, the campuses were studied for the interactive spaces and were understood from colleagues & faculty of architecture who are now the alumni of these 3 prestigious colleges. The common set of questions was made on the basis of the areas of interaction identified for each campus.

The interactive spaces for each campus are listed below:

1. Sir JJ COA, MUMBAI

- Brick forum
- Circular forum
- Workshop
- Canteen
- LCR

2. CEPT, AHMEDABAD

- North lawns
- Sagara basement
- Central ground opposite to sagara basement
- Canteen
- GIDC canteen

3. SPA, BHOPAL

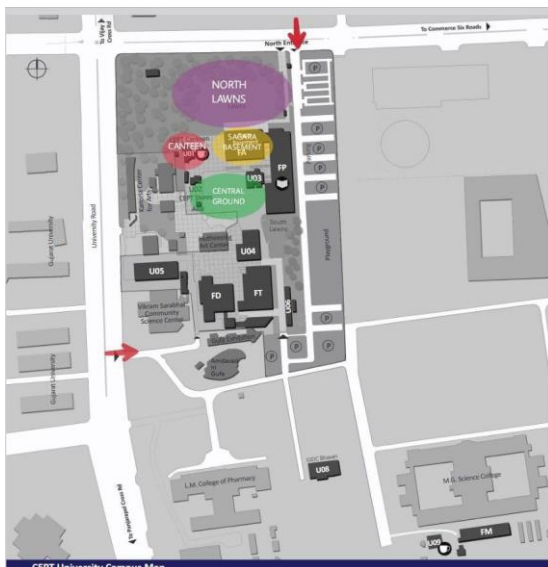
- Canteen
- Lake view point
- Spa logo point
- Hostel courtyard
- Basketball ground



SPA Bhopal campus plan



Sir JJ COA Campus plan



CEPT campus plan

The set of common question on based on the spaces were as follows:

- Q.1 Which informal space was the most you spend your time ?
- Q.2 Was the space easily accessible to adjacent buildings?
- Q.3 How was the circulation throughout the campus with reference to connectivity?
- Q.4 How useful were the interactive spaces ?
- Q.5 Were the spaces well designed/ planned with reference to seating furniture, space well shaded, crowd holding, lighting levels at night etc.
- Q.6 How much time you would spend in these spaces at a stretch?

The research paper talks about the analyses derived from the responses received through online google forms. The limitation faced in this research is lack of time to physically visit the college campuses and interact with students to gain better perspective.

4. RESULTS AND ANALYSIS:

Through the responses received for various questions following is the analysis:

Q.1 Which informal space was the most you spend your time ?

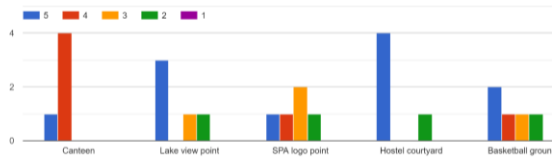


Figure 1: SPA Bhopal- Answer 1

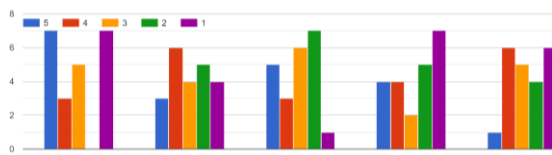


Figure 2: Sir JJCOA- Answer 1

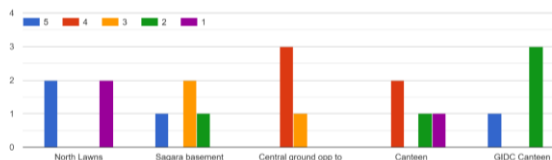


Figure 3 : CEPT- Answer 1

As seen from the responses, Users from SPA Bhopal love the Hostel courtyard and Lake View point for interaction. These areas were equally accessible to all genders and enhanced the interaction. In Sir JJ COA campus Brick Forum area, which lies between the old and the new building got the maximum votes followed by the canteen which was centrally placed in the campus. North laws in CEPT campus came out to be the most loved interactive space immediately followed by the central ground opposite to sagara basement. North lawns is the area that always has scattered daylight and no harsh sunlight which makes the areas comfortable to use throughout the day.

Q.2 Was the space easily accessible to adjacent buildings?

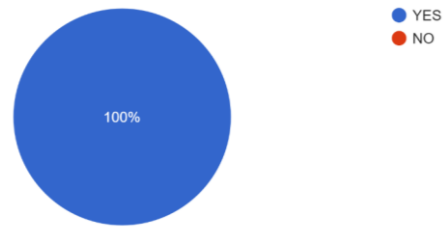


Figure 4: SPA Bhopal- Answer 2

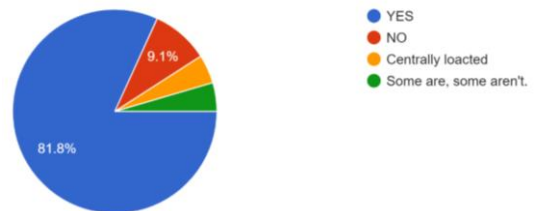


Figure 5: SIR JJCOA- Answer 2

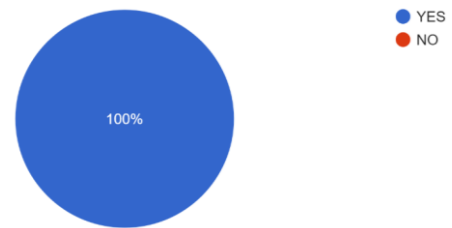


Figure 6: CEPT- Answer 2

As seen here, all the areas mentioned in the campus as interactive spaces were very well adjacent to the classrooms of the users. People encourage the areas due to their central location.

Q.3 How was the circulation throughout the campus with reference to connectivity?

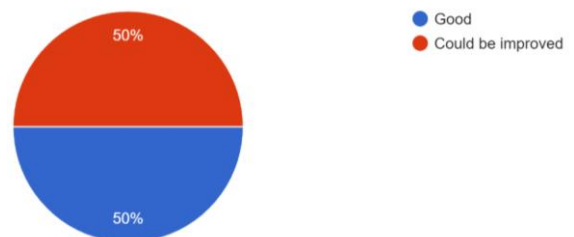


Figure 7: SPA Bhopal- Answer 3

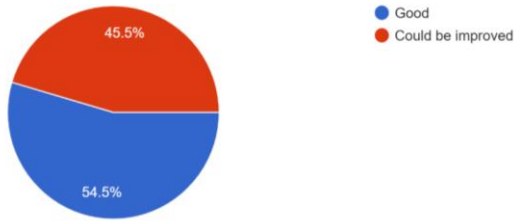


Figure 8: SIR JJ COA- Answer 3

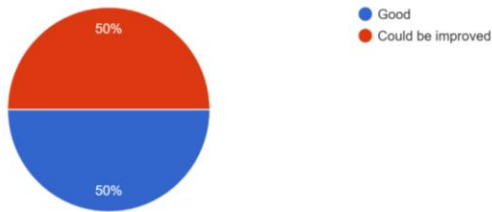


Figure 9: CEPT- Answer 3

Though 50% user thought the circulation throughout the campus has good in connectivity, equally half thought it could be improved in some ways like by giving good accessible pedestrian ways and keeping the security issues in concern.

Q.4 How useful were the interactive spaces?

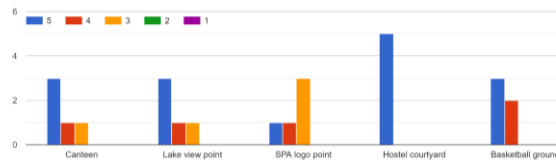


Figure 10: SPA Bhopal- Answer 4

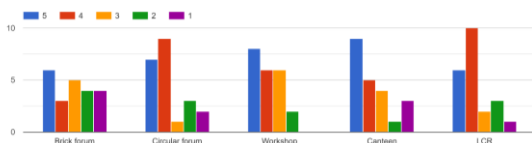


Figure 11: Sir JJ COA: Answer 4

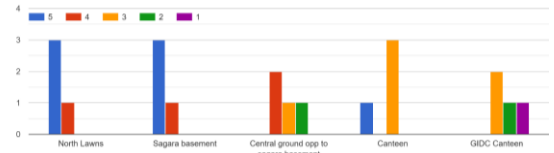


Figure 12: CEPT - Answer 4

All the places seemed to be interactive. But one important point analysed here is that not all the places with topped to be most interactive space seemed to be most useful. For Eg. In case of Sir JJ COA campus Brick forum area was voted to be the most interactive but then canteen, LCR and workshop areas were found to be more useful for interaction by a few users.

Q.5 Were the spaces well designed/ planned with reference to seating furniture, space well shaded, crowd holding, lighting levels at night etc.

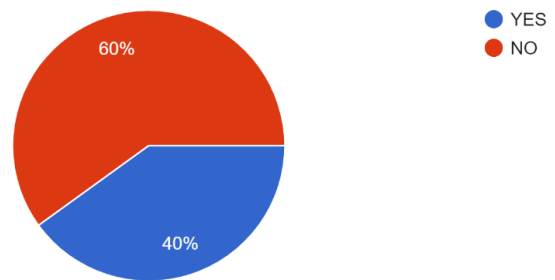


Figure 13: SPA Bhopal- Answer 5



Figure 14: Sir JJ COA- Answer 5

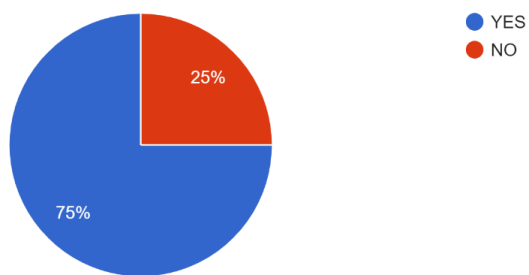


Figure 15: CEPT- Answer 5

Following were the responses gathered when asked whether the interactive spaced were appropriately designed or not? :

SPA Bhopal campus user said the areas should have more shaded spaces so that could be used as interactive spaces even in the day time. More seating spaces could be added to avoid the clustering of the areas.

Sir JJCOA campus users said that the majority of the areas were well designed but on the other hand some suggestions were worth noting like the workshop and canteen area lacked proper lighting levels during night times. The circular forum lacked a proper shade. Also, areas like LCR (Ladies Common Room), the mezzanine floor in the old building, could be redesigned.

75% of responses received from the user of CEPT campus thought the areas were very well designed and the seating and trees were the part of space itself.

Q.6 How much time you would spend in these spaces at a stretch?

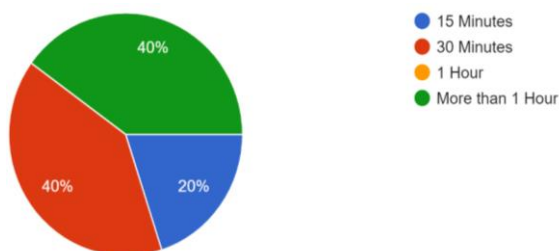


Figure 16: SPA Bhopal-Answer 6

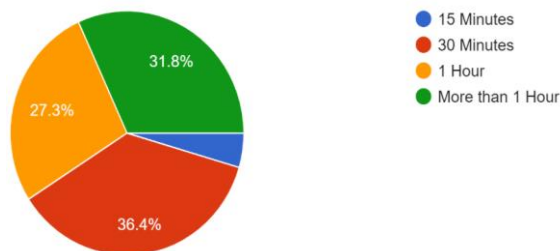


Figure 17: Sir JJ COA- Answer 6

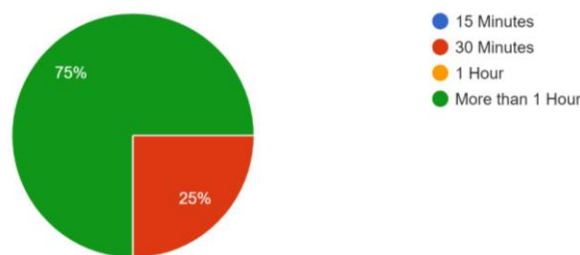


Figure 18: CEPT- Answer 6

All the users from these 3 campuses spent no less than 30 minutes in the interactive spaces.

5. CONCLUSION

As seen from the above responses to the posed questions, People love to personalize the interactive space to make themselves comfortable there. Users feel welcoming in campus due to such areas.

Other general suggestions received from the users for the campus development are:

1. Conducting a few classes in these open areas
2. Have a better view of these areas for security reasons,
3. Provision of a better pedestrian path
4. Adequate artificial lighting levels,
5. Shading the seating areas can encourage more users to interact with colleagues and friends in these areas.
6. Easy navigable spaces

Another suggestion received from the user was the provision of charging points to encourage working on laptops in these areas. But we strictly feel this strategy could hamper the interaction we seek in these areas.

The most important strategy gathered from this study is any space designed in the campus should respond positively to the local climate. Hot and humid city can have places which have good ventilation and openness among the adjacent building whereas areas with hot and dry climate need to have good shaded areas with provision of some water body to humidify the air around them and make the use of these spaces comfortable.

6. REFERENCES

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