



ANALYSIS THE BEHAVIOUR OF STUDENTS IN SCHOOLS RESPOND TO THE BUILT ENVIRONMENT

K.Chithra, R Mano Ranjan, G Meenambigai, A Nandhini

B.Arch, B.Arch, B.Arch

Department Of Architecture

Periyar Maniammai Institute Of Science And Technology, Thanjavur, India

Abstract : School surroundings and students' wellbeing have been linked through the research into the physical, social, and academic (curricular) characteristics of the environment. The research focuses on mainly physical factors, such as activity areas, open spaces, and green spaces. The behaviour and emotional development of kids can be directly impacted by the quality of these environments in school infrastructure. To encourage the individuality, collaborative and interactive learning experience.

IndexTerms - Behaviour study, students,space,connectivity,physcologyof colour,activity of students,outdoor space,sketches of students activity.

I. INTRODUCTION

Environmental behaviour studies contribute the most comprehensive approach as get devised to the 'utilizers' .human environment studies , 'social ecology', ' human factors' ',behavioural architecture' ',Which comes under an human psychology.

Student behaviour studies in architecture include the relationship between the environment and student behaviour to implement in the design process psychology of the user how he/she perceive the building form ,social interaction ,sub cultural difference in life style meaning and symbolism of building. The study level will be based on,

- Visual level
- Conceptual level
- Behavioural level
- Physical level

Student behaviour study include the perception or behavioural or emotional response to environmental form.

II. OBJECTIVES OF THE STUDY

- To study the student's behaviour pattern in campus and behaviour of learners in learning environment.
- To identify the co relational aspects of various building elements.
- To encourage the indivuality,collabarative and interactive learning experiences.
- Provide the comfortable ,durable, and stimulating for the students.
- To know the built environment to influence the behaviour and mood of users.

III. SCOPE OF THE STUDY

The study analysis focuses on new learning space strategies where spatial perception and construction as learning tool widen the school environment,with proper building infrastructure that make an students life enhance they are in good ambience. The built environment gradually became an alternative educational platform which has new design approaches to achieve the responsive environment in school architecture.

2.1.PATTERNS OF MOVEMENT AND CIRCULATION:

How a building and environment interact with students?

The quality of a building is objective and spaces oriented in an exact place for student and it gives character by patterns of events that continue to happen there.

Outside pathways:Paths,arcades,major activity centre .A covered walkway that provide an shelter for the school buildings that make the staff and students comfortable .it also act play area for kids and additional learning space



Figure 1-Outside walkway act as outdoor study space and playarea

Corridors: The clear and comfortable passageway that are an flow of movement and circulation.The students follow the paths that are complete the various movements on path that are design to engage an different parts of an body and brain In passage ways ,the interesting students activity were happening.



Figure 2- Students extra curricular activities are happening

Outdoor space: The most of the students activity are active in outdoor space than the indoor.The outdoor space that extend the learning and it be both educational and health related benifits on learning in outdoor In outside that will reduce the stress level of students and improve the students were emotionally connected to the space .

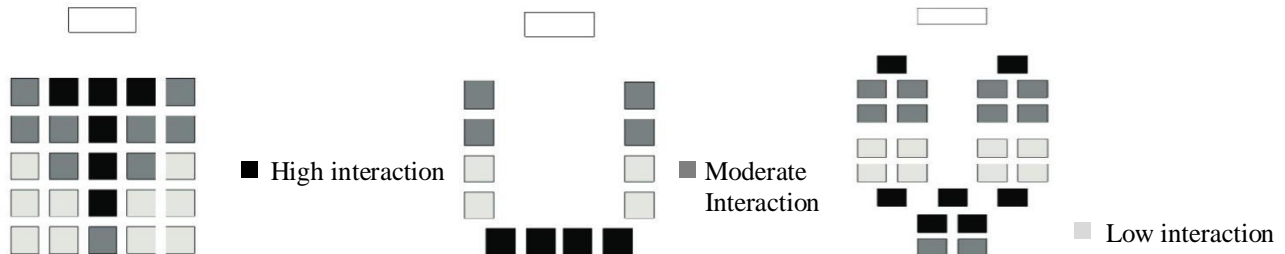


Figure 3- outdoor recreation space with students performing activities

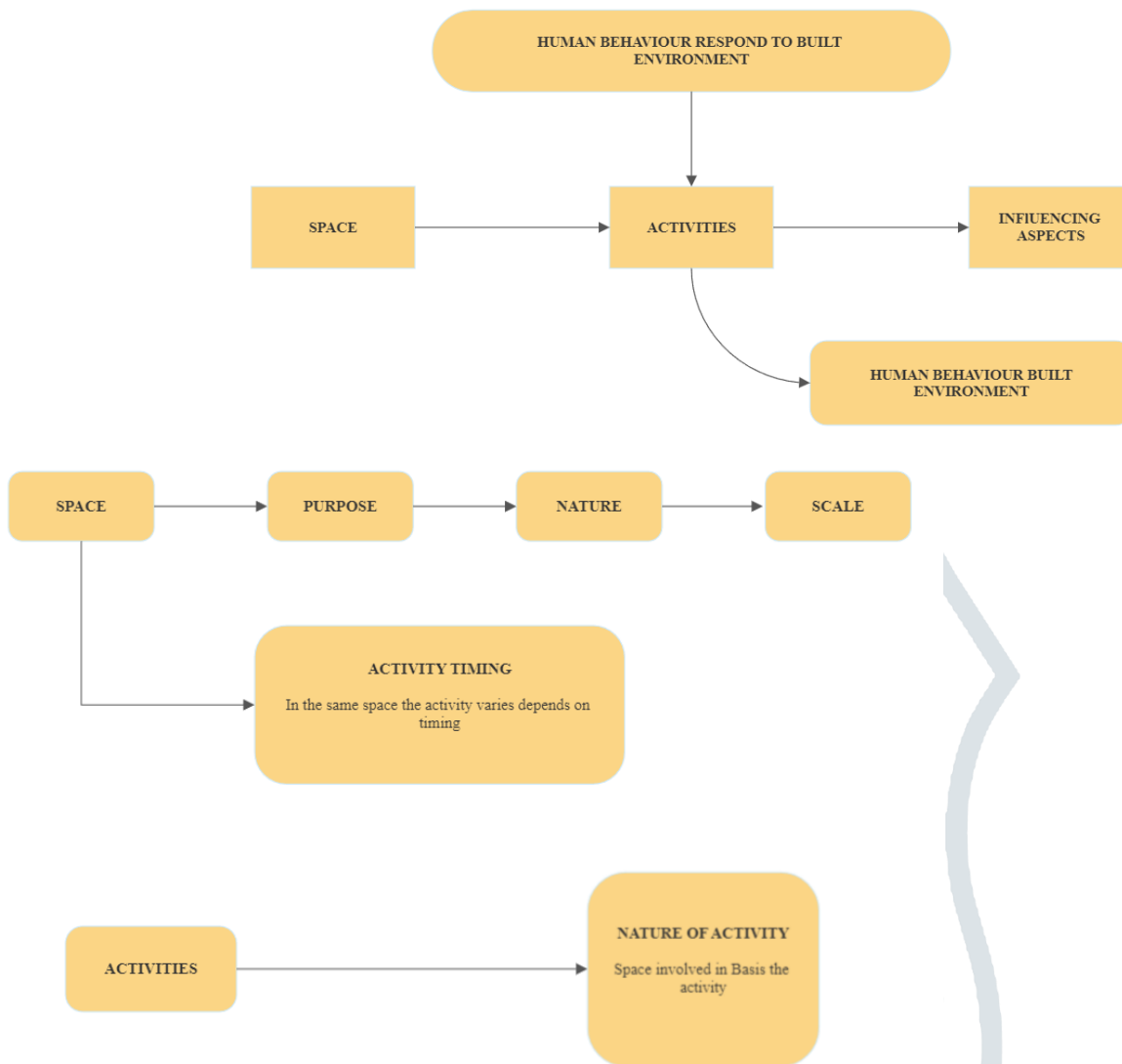
2.2 PHYSCOLOGY OF COLOURS THAT CHANGES AN STUDENT’S BEHAVIOUR :

Colour that has plays an major impact on how students behave in class, maintain their concentration The neutral colours that are maintaining the focus of the students in classroom.The colour that will improve the memory of the students each.each colour has an different characters that will react in students emotion. The cool colours are eco friendly for students.The colour that make an attentio of the students based on their activity.blue that makes an enhance approach for learning and welcoming,It increase the comfort and calmness of the place to study. Green that improve the memory of the students,it relieve the stress level of the students and make an eco friendly environment to learn.Red colour that encourages the creativity and it grab the attention of the students.Yellow colour that maintain the attention of the students it boost the mood of the learners and increase the joy.

2.3.ANALYSIS THE INTERACTION BETWEEN THE STUDENTS THROUGH THE SEATING ARRANGEMENTS

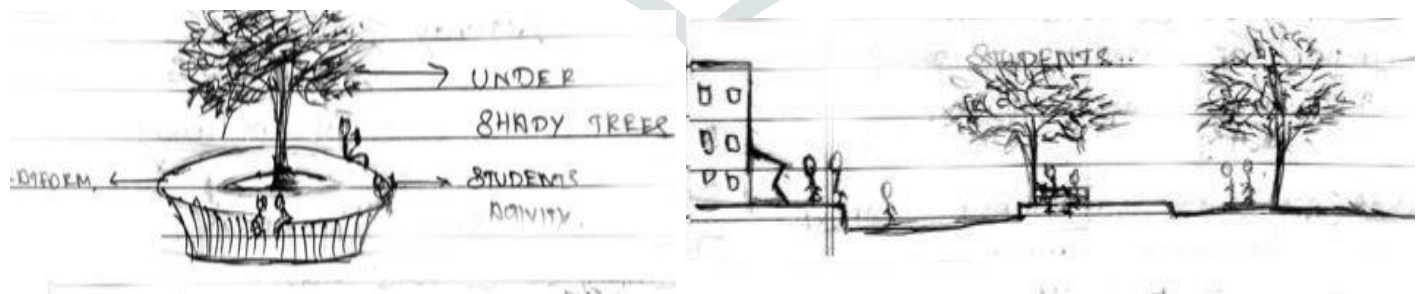


2.4.ANALYSIS OF STUDENT’S BEHAVIOUR:



ANALYSIS OF INTERACTION SPACES AND THEIR FLEXIBILITY AND STUDENT’S BEHAVIOUR IN OUTDOOR SPACE:

Nature of space: Learning relaxing under the shady trees,most of the students are like to prefer outdoor spaces for learning.The platform under the tree that became an activity spot of student’s most of the student’s will gather on their leisure hours to chit chat with each others.In the evening time the space is filled with student’s.The student’s enjoying the open space than the enclosed area.It will elaborate their creativity level of the student.



Perception of space: Based on the vertical plane height the activity level of students will be varies.when it the height of plane will have 2’ height with no enclosure,that will act as an seating space.The building edge is designed such as includes the interaction among the students through these activity pockets.

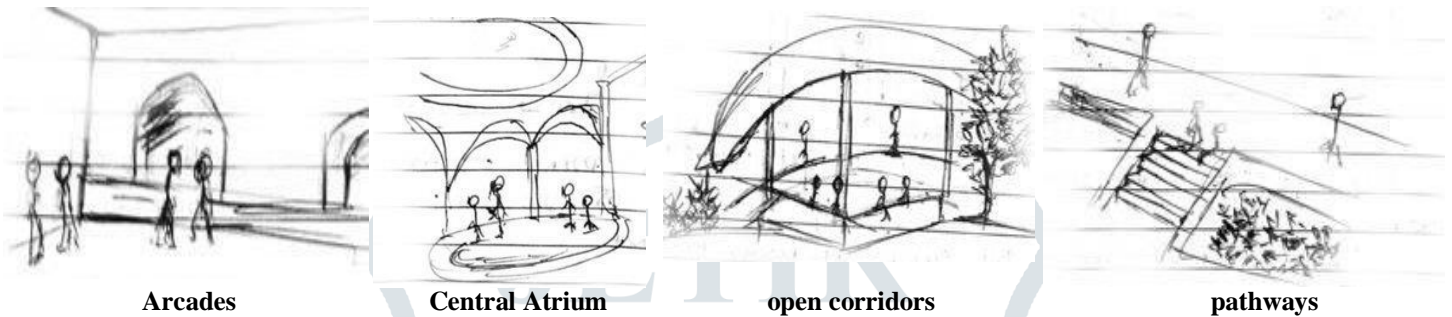
The volume of the spaces inside to keep changing through the building.It squeezes,expands,and levels inside to providing the spaces for various types of activity occur.A linear free standing wall orients towards the circular entrance of the court concave space leads the user to the interior of the building.The steps with two edges and step along the curved wall act for the interaction.The perception of space will varies based on their characteristics of the space,the students activity will be followed.

Perception of space with vertical plane:

Students also used the vertical plane as post for playing activity like hiding some kinds of activity are happening there when there is row of post arranged. The vertical plane which has in the eye level used as an display area. students activities are displayed and also used as an stage for performance. The display area which is placed in the entrance of the block with steps for sitting to chitchat with each other to make an interactive conversation between the students.



Student’s Behaviour in outdoor space:



Arcades

Central Atrium

open corridors

pathways

Student’s having discussing among themselves in corridors, activities like chatting in outdoor corridors. In the central plaza the interaction between the juniors and seniors are more common in that space. The shaded walkway with tree along the large stretch make the walking an interesting task. steps along the walkways that act as an space for gathering for chit chat.

The bridge that easily connects the students between the block to block it act has an interactive space on leisure time. The students are enjoying while standing in that spot have an visually connectivity all through the space.



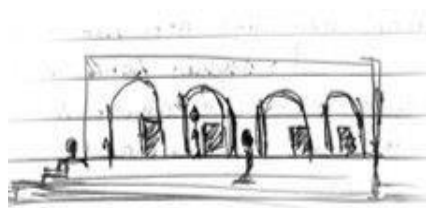
Horizontal Bridge

Interactive corners

seating platform

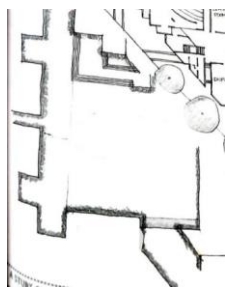
The corners of the seating platforms are more interactive. In the curve seating platforms both the sides of the seating are used ,the concave side will have make group gathering creates an more interactive. In the context side they sit as an individuals.

Influencing aspects: The mental thoughts of the students that were peel and emotionally reflected towards the activity happens in that space. Each space that has an unique characters when the students based on the students behaviour. The recreation space that blends the interior and the exterior. The building edge is designed such that induces the interaction among the students through the activity pockets. The most of the spaces are influenced by the activity of the people.

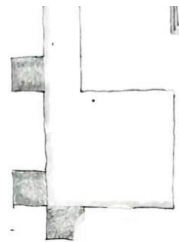


the time during working days, most of the students are make an conversation while walk

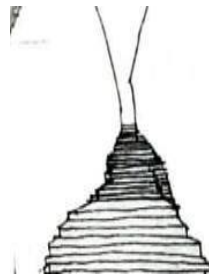
Building edge :



Pockets of activity spaces in building edges



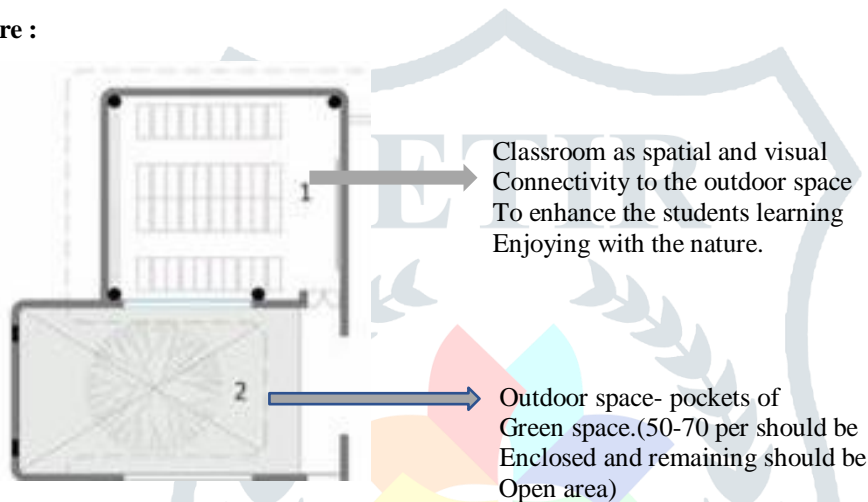
Staircase-vertical circulation



curved edge act as interaction

The edge of the buildings that are act as an pockets of activity space for the students to interact and creates an more interactive space for the students. The stairs are the most interaction spot for the students, they like to enjoy in that space during their break hours to gather with each other and meeting spot through vertical circulation movement.

Classroom enclosure :



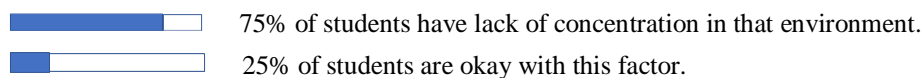
2.5. ANALYSIS OF DATA FROM TAKING SURVEY AND REVIEWS :

1. What type of space students enjoy to learn?

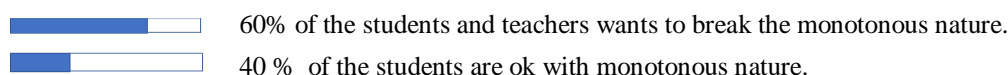


Majority of students like to learn in outdoor space than the indoor classroom. They enjoy while, learning contact with the natural environment. They can't feel dump on outdoor space. We consider the safety of students we can provide an outdoor with spatial connectivity from the indoor classroom. The wall will be semi enclosed.

2. Poor and unattractive infrastructure that will affects the students mind while studying?

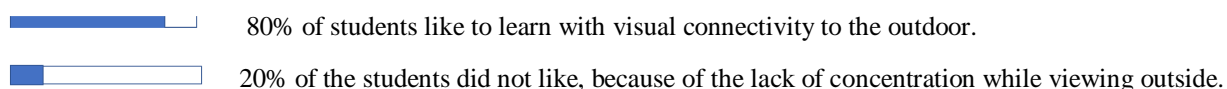


3. Whether the students like Monotonicity in campus?





Monotonous nature will create boring feel for the users. When we break, each and every space has specific character the students are attractive to perform various activities in different spaces.

4. If the students like to learn with a visual connectivity to the outdoor?




5. Lighting and ventilation plays major role for an interaction and gathering spaces?


 93% teachers and students say yes

 7% teachers and students say no

6. Whether the students and teachers like the single block of building in the campus design?

 65% of students and teachers says no because there is a lack of flow circulation.

It feels that we are in same place.

 35% of students and teachers says yes because they want to avoid a movement of circulation because of their physical body condition.

IV. CONCLUSION:

School plays a major role for well-being on future. It is a first step of place to enter into our goals. So that the campus design should be encourage the students for learning and extra curriculum activities.

- The space and environment should want to students come to school every day to enjoying the learning environment, based on students interacting with their. They enjoy were enjoy to come for school. So for that the interaction spaces are created, as a designer when we design a campus we want provide an interaction space for the students.
- We can provide a different levels of planes, the students will perform various activities based on the level of planes. Provide a volume of space that makes interesting.
- Providing Amenities to make a student to be in contact with this campus. Frame the views within a building and also to the exterior.
- Providing an Activity pocket that make the students interaction stronger. Break the monotonicity in the design, which creates a students to involve in various activities at different spaces.

V. References

- [1] <https://www.teachthoug.com>
 [2] <https://www.ascd.org>
 [3] <https://www.e3s.conference.org>
 [4] <https://psychologyandeducation.net>

