



EFFECT OF INFORMAL LEARNING ACTIVITIES IN TRANSITIONAL SPACES ON INFORMAL LEARNING OF ARCHITECTURE STUDENTS

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Abstract

A campus is a place where students acquire knowledge from colleges in the form of lectures. Now in recent years, the concept of study space has changed from conventional form to contemporary form. The concept of learning will change from closed space learning to open space learning (Transitional spaces) in the future. Transitional spaces are spaces located in between outdoor and indoor environment acting as both buffer spaces and physical links. These spaces are mostly used for conducting various informal activities in colleges. In architecture education, formal education should be supported with informal education in order to equip students with general architectural knowledge and improve their architectural design power. Informal learning activities will help to develop the informal learning of the students. The study was undertaken to examine the effect of informal activities conducted in transitional spaces on the informal learning of architecture students. A study was conducted in Pune by selecting two architecture colleges and 90 students from these two colleges. The selection of colleges and respondent students were done purposively. The results of the study indicated that among different transitional spaces, Courtyard Amphitheatre, Common area, Students Plaza, and corridors were ranked high on the basis of the mean score. While model making, Workshop, and Students presentation were the most important learning activities. An overall increase in learning was observed in transitional spaces as against classroom situations. Informal learning is relatively more in transitional spaces and it establishes the importance of transitional spaces in Architectural education.

Keywords: Transitional spaces, Informal activities, Informal learning, Composite index of learning.

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1. Introduction

A college campus is a place where students acquired knowledge from colleges in the form of lectures, while designing the campus only care is taken to design space for class rooms and studios. Now, in the recent years, the concept of study has changed from conventional form to contemporary form. The concept of learning is changing from closed space learning to open space learning in Transitional spaces. Transitional space in architecture is define as the connecting in-between spaces. It is a change of space from one state to another and Architectural spaces are incomplete without transitional spaces. Transitional space is that space that experiences the activities between the inner and outer worlds in which primary creativity exists and can be develop creative thinking [1]. These spaces are generally used as linking space between two or more spaces. Courtyard, Verandas, Corridors, Staircases and Ramps are common examples. Spaces can be broadly classified in to three types geographical spaces, living spaces and Architectural spaces (Interior or Exterior spaces).

The spaces encompass the volume of a structure, the parts of a building we move through and experience. But space can only be created through the use of form. Form is the mass or grouping of materials, used to give a building its shape [2].

Transitional spaces have played a major role in Indian architecture. It has varied in scale, type, use and topography. They play a major role in the division and connection of spaces and also helpful in maintaining the privacy. Artian Pitts et.al (2008) expressed that Entrance, Corridors, Atrium, Lobbies and other spaces through which people travelling between the exterior and interior environment or between different interior spaces and as such suggested that large proportions of buildings could be designated as transitional spaces in order to take benefit of these spaces [3]. While Usama A Nassar et.al (2014) described the relationship between the environment and students behaviour and identified it's use in the design process to proposed vision for these transitional spaces allows their interactive performance to be measured using an evaluating scale based on functional and psychological criteria. Students' preferences for transitional space is decided by the circumstances and characteristics of the places. Different forms and kinds of places to review outside the class room provide an option for college students to form their choices [4]. They need these spaces for learning informally or independently or in groups with colleagues in the campus i.e., Libraries, Cafeterias, Atriums, Corridors, Terrace, Parks and other open spaces. Criteria for college students to select spaces for learning depends on location of space, availability of supporting facilities, characteristic of spaces, infrastructure, atmosphere, luxury and other factors associated with learning objectives [5].

History of Transitional Spaces

Right from the prehistoric architecture, there was apparent evidence of the usage of transitional spaces. In the Neolithic period, there was confined spaces for transition in the adjoining excavated dwelling at skara Brae [6]. In Egyptian, pre-columbian and persion periods these spaces got a new dimension. In Indian architecture, the very ancient civilization like Mohenjo-Daro and Harappa were constructed with significant usage of transition spaces. From a Simple corridor connecting two houses to the Courtyards. Elegant verandas gave way to lobby areas and porticos as architectural and cultural traits changed over time [7]. These spaces have evolved as a result of architectural & cultural changes. When we compare the transitional Spaces designed in earlier times to that of now, there is no major change either, they have evolved from them. Courtyard being the major transitional space were found in the era of Rajput architecture as well as edifice of Maharashtra. In tropical region, Skylight is generally dispensed and is substituted by a courtyard. It served as controlling the diurnal variation of temperature.

Transitional Spaces in Indian Context

In Indian Architecture, the transitional spaces play a very significant role in residential buildings. They played a role in both dividing and connecting the inner and outer space. In Indian Architecture, the typology and nature of transitional space have been changing with time. The earlier cities were dense hence the transitional spaces were tight and mostly bounded by all sides, creating a sense of space and comfortable scale. As the settlement grew, they became more planned and organized. Hence, the transitional spaces were organized and no longer acted as left out spaces.

Importance of Transitional spaces in Architecture

Transitional space is vital in every Architectural design whether residential or commercial. These spaces aid to the imperative transition from the inside to the outside or from any one area to another. These spaces are created through green fields, breeze ways, corridors and entrance halls. Most architects today strive to create spaces that are more than just four walls and a ceiling. Since it is our human nature to explore our senses, it is one of the architects responsibilities to continuously look for new ways to stimulate the built environment both on the exterior and interior. Transitional spaces are indispensable in Architectural design. Not just our buildings but our public spaces would be incomplete without the existence of these spaces [8]. The role of Transitional space is functional, social, symbolic and visual and they can serve as building blocks for sustainability. It has also become apparent that these spaces greatly affect human behaviour which has an impact on the design of a city or building.

In principle, transitional spaces have an elastic environment because people tend to spend shorter period of time in them. Recent Architects argued that

using the design of transition spaces would create a learning environment that is invaluable to the educational process. Usama A Nassar et.al (2014) In their study discuss the importance of transitional spaces in higher education building as a part for students gathering areas to improve their interaction behaviour and also improve their informal learning [4].

Every type of space be it a courtyard, a corridor, a lobby or an atrium play an important role in the designing. All of these informal learning spaces serve as a destination for students to learn. Students choose to study in campus transitional spaces while waiting for the next lecture before the start of the class or after the class in the college campus. Students choose transitional spaces for their place of study because spaces are available with all facilities like electricity plugs, internet, tables and chairs and enjoy their study because the atmosphere of transitional space is comfortable, quiet and also shady. Studying in campus transitional spaces students feel free to explore in learning. These transitional spaces are mostly used for conducting various informal learning activities in colleges.

Informal Learning Activities

In architectural education, formal education should be supported with informal education in order to equip students with general architecture knowledge and improve their architectural design power. In architectural design education where, formal education is effective informal activities play a complementary role to formal events. The Informal activities where student can move away from limitations, act on their own initiative develop design ideas and products. At the same time informal education areas are also very important for the students to follow the professional agenda [9]. They consisted the weight of informal education "The difference between the workshop and other organizations is (Conferences, Seminars, Exhibitions, Performances) that they are producing an environment of mutual interaction where they come together for certain purpose, whatever the audience is talking about" For this reason, the study is addressed through workshop in informal activities [10].

Informal activities are generally designed to allow students to become more involved in campus. Often, such activities provide opportunities to students to develop Leadership, Social responsibility, Citizenship, Volunteerism and Employment experience.

Informal learning activities refer to learning that occurs away from a structured, formal class room environment. Informal learning activities in the present study are workshop, students' presentations, and model making. These informal activities are mostly conducted in transitional spaces to increase the informal learning of the students.

Informal Learning

Formal learning is one that works under the framework set by individual boards of education. It includes educational institutions, classrooms, specially trained

teachers, teaching equipment's, extracurricular activities, competitions, examination and a curriculum or syllabus. While Informal learning refers to learning that take place outside of a formal and structured environment. Informal learning is involuntary and an inescapable part of daily life for that reason it is some time called experiential learning. Human beings keep on learning throughout their lives and it is a fact that 90 % of it is in an unplanned and unstructured way. It happens naturally, with the learner grasping the knowledge in advertency without any conscious thought. Informal learning includes learning from experience and self-directed study like self-study, looking at videos, participating in Chatrooms. reading articles and taking part in informative discussions [11]. Human resources estimates suggest that about 70-90 percent adults learning takes place informally and outside educational institutions [12].

Students need campus transitional spaces for social interactions such as Debate, Discussions, Group working and Presentation. All these informal learning activities will help to develop informal learning of the students. In the present study informal learning refers to learning that occurs away from a structured educational programme. It refers to gain in knowledge / learning due to informal learning activities like Model making, Students presentations and Workshop conducted in transitional spaces related to architectural design subject.

With this in view, the present study was undertaken to examine the effect of informal learning activities conducted in transitional spaces on informal learning of Architecture students.

1. Methodology

Research methodology deals with the description of empirical measures for testing the hypothesis developed. Considering the importance of methodology this has been divided in most relevant subsections. The present investigation involves combination of socio - psychological and Architectural parameters, efforts have been made to arrive at most logical and empirical revelation.

Subsections of Methodology are as follows

1. Identification and ranking of indicators of
 - a) Transitional spaces & their characteristics.
 - b) Informal learning activities.
 - c) Informal learning / knowledge
2. Sample and sampling technique.
3. Measurement and Development of informal learning composite index.

1. Identification and Ranking of Indicators of

a) Transitional Spaces and their Characteristics

In all twenty transitional spaces were identified on the basis of review of Literature. The identified transitional spaces were referred to two groups of Judges one who were Architects with more than ten years of experience and others were college teachers with more than ten

years of experience in teaching for judging relevance and rating their importance. Rating was subjected to three-point continuum namely Most Relevant, Relevant and Not Relevant with 3, 2 and 1 score. After obtaining rating from judges, mean score, S.D. and C.V. for each transitional space was worked out. Transitional spaces with more than 30 C.V. were deleted (Elsevier). Finally, ten transitional spaces were selected and ranked on the basis of mean score. (Likert scale 1969)

Characteristics of Transitional Spaces

In all 37 Characteristics were identified on the basis of review of literature and referred to judges for relevance and rating. The rating was done by the same two groups of judges on three points continuums i.e., most relevant, relevant and not relevant. with 3,2 and 1 score respectively. After obtaining rating from judges, mean score, S.D. and C.V. for each characteristic was worked out. Characteristics with more than 30 C.V. were deleted. Lastly 27 characteristics along with their rank were identified on the basis of mean score.

b) Identification And Ranking of Informal Learning Activities

In all, 15 different informal learning activities were identified from review of literature. The identified informal learning activities were referred to Judges for rating on three points continuums namely most important, important and not important with 3, 2 and 1 score. The group of judges consisted of 23 teaching faculty from different Architecture colleges of Pune. After receiving rating and relevance of activities from judges, mean score, SD. & C.V. was worked out. Informal learning activities with more than 30 CV were deleted and finally 10 activities were selected. Out of these ten activities, Three activities with less than 30 C.V. were selected for study.

c) Informal Learning

Informal learning refers to any learning i.e., not formal, self-directed away from class room or learning from experience (Deborah Harrop 2013). However, in the present study informal learning has been operationally define as the knowledge gain by the respondent students about various architectural subjects through different informal learning activities conducted in transitional spaces in the selected colleges. In all 27 informal learning indicators were studied.

2. Sample and Sampling Technique

I. Location of Study and Selection of Colleges

The study was conducted in Pune selecting two leading architecture colleges under Pune university. The colleges were selected purposively on the basis of relatively higher level of availability of transitional spaces.

II. Selection Of Respondent Students

In all 90 students. i.e., 45 students from each college were selected by using nth simple random sampling method.

III. Research Design

The study was conducted using Experimental Research Design. The design consisted of conducting experiments on the selected subject activities related to course work of the students. The student was exposed in the classroom in formal learning situation & the same group of students were exposed in Transitional spaces to the same activities for informal learning experience. The difference in learning between the two situations measure the change in informal learning.

3. Measurement and Development of informal learning composite index

Informal learning was measured in terms of difference in knowledge gain by the respondent Students in class room vs transitional spaces. For this, students were exposed to various informal learning activities through standardized and tested informal learning test. A comprise list of informal learning indicators were prepared and standardized by referring to judges who were expert and experienced in the field of Architecture teaching. They were advised to decide relevance on 3 points continuum mainly most relevant, relevant and not relevant with 3, 2 and 1 scoring. Based on the responses of the judges and rating given by them, mean score and C V (coefficient of variation) for each indicator was worked out. Considering the time for research, only 09 most important informal learning indicators were studied. Reliability and validity of the informal indicators were tested using Test - Retest and Internal Consistence Reliability method.

In order to study the effect of informal learning activities on informal learning, the experimental study on Anthropometry was designed and experimented in classroom as well as in transitional spaces. The experiment was conducted about three hours i.e., 1½ hrs in classroom and 1½ hrs in transitional spaces. The responses of the students were obtained on 5 points continuums i.e., fully increased, increased, partially increased, not increased and not at all increased with 5,4,3,2 and 1 score respectively. Thus, the raw score obtained for each indicator was multiplied by weight given by the expert, indicating its importance. Thus, in this way weighted score was worked out and it was used to compute the weighted composite index. The formula used to compute composite index of informal learning is.

Composite index = weighted obtained score / weighted obtainable score X 100

The composite index so obtained indicate the informal learning by each respondent student.

3. Results and Discussion

The results have been presented under the following heads.

- I. Identification and Ranking of Indicators of
 - a) Transitional spaces with their characteristics.
 - b) Informal learning activities.
- II. Distributional analysis.

a) **Identification of Indicators of Transitional Spaces.**

The identification and selection of indicators of transitional spaces were done using the procedure described in methodology, 10 transitional spaces out of 20 were selected and presented in **Table 1**.

I. Identification of Indicators

Table 1 - Identification of Transitional spaces & their Rank

Sr.No.	Transitional Space	Total Score	Mean	Sd	CV	Cronbach's Alpha	Rank
1	Courtyard	29	2.9	0.32	10.9	.957	Rank 01
2	Amphitheatre	28	2.8	0.42	15.0	.852	Rank 02
3	Common Area	28	2.8	0.42	15.0	.823	Rank 02
4	Verandas	27	2.7	0.48	17.8	.821	Rank 03
5	Student's Plaza	25	2.5	0.71	28.28	.811	Rank 04
6	Corridors	24	2.4	0.70	29.13	.805	Rank 05
7	Ramp	24	2.4	0.70	29.13	.785	Rank 05
8	Entrance Steps	24	2.4	0.52	21.52	.771	Rank 05
9	Canteen Area	24	2.4	0.52	21.52	.769	Rank 05
10	Passages	23	2.3	0.48	21.00	.752	Rank 06
Mean Score			2.6		18.75		

It is seen from **table1** that amongst ten transitional spaces, Courtyard, Amphitheatre, Common area and verandas were ranked high on the basis of mean score. The mean score was 2.9, 2.8, 2.8 and 2.7, respectively. However, C.V. of all transitional spaces are observed to be 18.75 (less than 30 within acceptable limit). There by indicated that there is less dispersion around the mean i.e., consistency in the effectiveness

of these 10 transitional spaces in facilitating informal learning about architecture subjects.

b) **Identification And Ranking of Informal learning Activities**

The informal learning activities along with their mean score, rank and Cronbach's alpha for reliability are presented in **table 2**.

Table 2: Informal learning activities with Rank on the basis of mean score

Sr.No.	Activities Selected	Total	Mean	Sd	CV	Rank	Cronbach's Alpha
1	Students Presentation	58.0	2.5	0.7	26.4	1	.893
2	Model Making Activity	56.0	2.4	0.7	29.9	2	.886
3	Workshop	51.0	2.2	0.6	27.0	3	.878
4	Academic Activity	48.0	2.1	0.6	28.6	4	.785
5	Student Meeting	42.0	1.8	0.5	26.9	5	.771
6	Discussion with Teachers	41.0	1.8	0.5	29.1	5	.762
7	Jury / presentations	40.0	1.7	0.4	25.8	6	.756
8	Sharing of Practical Knowledge	38.0	1.7	0.5	29.5	6	.752
9	Experiential learning	39.0	1.7	0.5	27.7	6	.748
10	Reading	24.0	1.0	0.2	20.0	7	.712

It is observed from table 2 that amongst different informal learning activities, activities where students involvement is relatively more viz students presentation, model making and workshop play

effective role in providing informal learning in Architecture Subject.

II. Distributional Analysis

a. Distribution of Respondent students on the basis of profile.

Students Profile

A study of student profile is necessary to know a record of academic success and its family status which are likely to influence the informal learning. Some of the important characteristics of the students are as follows:

1. Entry Level Marks

This has operationally defined as the percentage of marks of a student at 12th standard admissible for entry in Architecture college. The distribution of respondent's students according to their entry level marks are presented in table 3.

Table 3: Distribution of Respondent Students According to Entry Level Marks

Sr.No.	Entry Level Mark Category (%)	No of Students	Percentage
1	Upto 65	13	14.44
2	65 to 80	55	61.11
3	Above 80	22	24.44
	Total	90	100.00
	Mean	72.12	
	SD	7.52	
	CV	10.43	

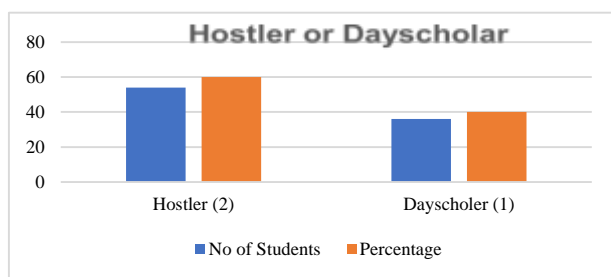
It is observed from table 3, that relatively higher number of sample students i.e., 61.11 % had 65 to 80 percent marks at entry level in Architecture college followed by 24.44 % respondent student's with above 80 % marks. Average level of percentage of marks at entry level was 72.12%. The C.V. was found to be 10.43%.

2. Residential Status

Among the selected respondent student's, some of them are residing in college hostel referred as hostellers and some of them are residing outside the college hostel called as dayscholar. In order to study the distribution of hosteller's and dayscholar students, they were categories in two groups i.e., hostellers and dayscholar respectively and shown in table 4.

TABLE 4: Distribution of Respondent Students According to Residential Status

Sr.No.	Residential Status Category (Students)	No of Students	Percentage
1	Hosteller	54	60.00
2	Dayscholar	36	40.00
	Total	90	100.00
	Mean	1.8	
	SD	0.49	
	CV	27.22	



It is observed from table 4 that relatively higher proportion of selected students i.e., 60 % were hosteller while remaining 40 % were Dayscholar. Hosteller was found to be residing in college hostel while Dayscholar were residing outside of the college premises.

For the admission in Architecture college, NATA (National Aptitude Test in Architecture) examination is compulsory. This has operationally defined as marks of a student at NATA examination. The respondent students were categories accordingly to their marks obtained in NATA and presented in Table 5.

3. Nata Marks At Entry Level

Table 5: Distribution of Respondent Students According to Mark Obtained in NATA

Sr.No.	Mark Obtained in NATA Exam Category	No of Students	Percentage
1	70 - 90	4	4.44
2	90 - 120	44	48.89
3	120 - 150	41	45.56
4	Above 150	1	1.11
	TOTAL	90	100
	Mean	117.42	
	SD	16.99	
	CV	14.47	

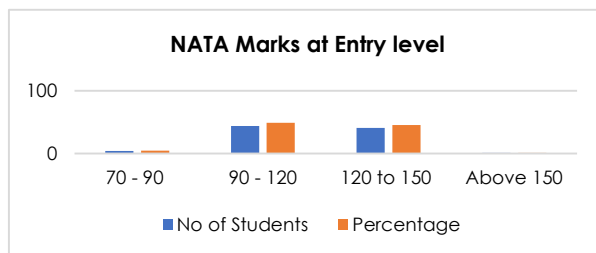


Table 5 presents that half of the respondent students i.e., 48.89 % were in the range of 90 to 120 marks. while slightly low proportion i.e., 45.56 % respondent students were in the range of 120-150 marks at NATA examination. Only 1.11 % student is in the range of above 150 marks. The mean level marks obtained by respondent students in NATA examination was 117.42.

4. College Attendance of Respondent Students

Punctuality in attendance referred as percentage of attendance of an individual student in attending different lectures. The respondent students were categories on the basis of percentage of attendance & presented in **table 6**.

Table 6: Distribution of Respondent Students According to College Attendance

Sr.No.	Percentage Attendance Category	No of Students	Percentage
1	Upto 70	2	2.22
2	70 - 80	42	46.67
3	Above 80	46	51.11
	TOTAL	90	100.00
	Mean	82.5	
	SD	7.1	
	CV	8.60	

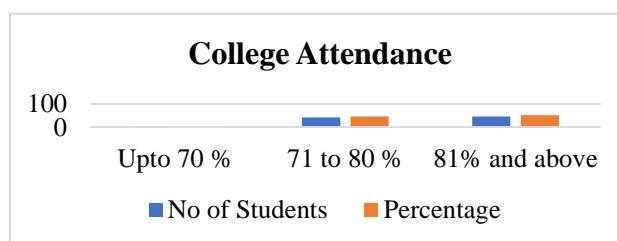


Table 6 refers that half of the respondent students had more than 80 % attendance in college were as 46.67% respondent students are in 70-80 percent categories. On an average, attendance of respondent students worked out to 82.5 %. It shows that majority of the students were regular in attending college.

5. Economic Status

Economic status referred as student's total family income in rupees per annum. It was categories as follows and shown in **table 7**.

Table 7: Distribution of Respondent Students According To Economic Status

Sr.No.	Category (Per Annum)	No of Students	Percentage
1	Upto 7 lakhs	13	14.44
2	7-9 lakhs	31	34.44
3	9 - 15 lakhs	35	38.89
4	Above 15 lakhs	11	12.22
	TOTAL	90	100.00
	Mean	13.82	
	SD	7.39	
	CV	53.45	

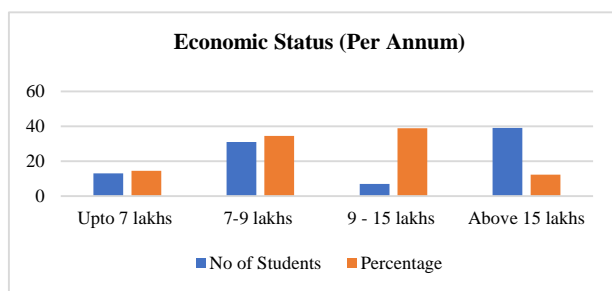


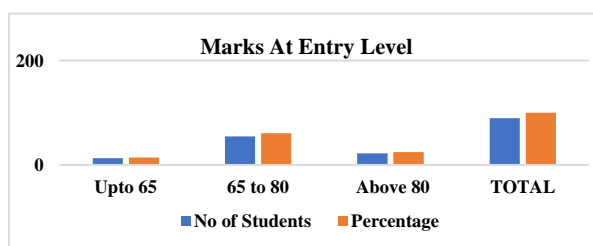
Table 7 shows that relatively higher proportion of the respondent students were from 9-15 lakhs per annum family income followed by 34-44 % in the family income group of 7-9 Lakhs per annum. The average annual family income of respondent student was 13.82 lakh per annum.

The informal learning level of respondent students was measured in two situations namely class room and Transitional spaces. The group of respondent students studied was common in both the situation and they were exposed through selected learning activities. The subject dealt with Anthropometry. The distribution of respondent students according to the informal learning level are presented in **Table 8**.

Distribution of Respondent Students According to composite index of Informal Learning Level

Table 8: Distribution of Respondent Students According to Informal Learning Level

Sr.No.	Informal Learning Level (Percentage)	Class Room Group		Transitional Space Group	
		No of Students	Percentage	No of Students	Percentage
1	57 to 64	19	21.11	5	5.56
2	64 to 71	48	53.33	11	12.22
3	Above 71	23	25.56	74	82.22
	Total	90	100	90	100
Mean Level of Informal Learning		67.90%		74.60%	
Difference in two group for Informal Learning Level				6.7%*	
Increase in Informal Learning Level in transitional spaces over Class room in Percentage - 9.86%					
Note: The difference was tested with the help of paired 'Z' test and found significant at 1% level of significance					
Calculated t = 4.09 and table value t = 2.06 at n-1 d.f.					



It is observed from **table 8** that large majority of the respondent students i.e., 82.22 % from transitional spaces group gained highest learning level i.e., above 71%. While in classroom situation only 25.56 % respondent students gain above 71 % learning level. Nearly half of the respondent student achieved 64 to 71% learning level in class room situation. Overall, **9.86 %** increase in learning level was observed in transitional spaces as against classroom situation. The change in informal learning was tested using paired Z test and it was found significant at 1% level.

III. Effect Of Transitional Spaces and Informal Learning Activities on Informal Learning of Selected Students

• Transitional Spaces and Level of Informal Learning

The level of informal learning was studied in different important transitional spaces namely Courtyard, Amphitheatre, Common area, Students Plaza and Corridors. The results obtained are presented in **table 9**.

Table 9. Transitional Spaces and Level of Informal Learning

Sr.No.	Transitional Spaces	No. Of Students	Mean Level of Informal Learning
1	Courtyard	23	66.40
2	Amphitheatre	22	74.80
3	Common Area	22	75.00
4	Student's Plaza	11	75.20
5	Corridors	12	72.40
	Total	90	74.60

It is observed from **table 9** that overall learning effect in transitional spaces included in experimental design have exhibited subsential effect on informal learning of the respondent students with regards to Architectural subject.

• Learning Activities and Level of Informal Learning.

The effect of various learning activities on level of informal learning was studied. Three most important learning activities namely Model making, Workshop and Students presentation was studied and presented in **Table 10**.

Table 10: Learning Activities Performed and its Effect on Internal Learning of the Respondent Student

Sr.No.	Informal Learning Activities	Mean Level of Informal Learning	
		Class Room	Transitional Spaces
1	Model Making	71.7	77.70
2	Workshop	66.9	73.20
3	Student's Presentation	64.8	72.80
	Overall Informal learning	67.9	74.60
Difference in Informal Learning level in transitional spaces over Class room 6.7 %			
Percentage increase in informal learning over Class room 9.86%			
Calculated Z = 4.09 and table value Z = 2.06 at n-1 d.f. significant at 1% level			

It is observed from **table 10** that Model making activity has been found to be most effective learning activity in classroom and transitional space situation. Further, it is observed that student presentation has exhibited relatively low level of learning in transitional spaces as compared to work shop and model making. Thus, it may be concluded that considering all three activities, overall learning is relatively more in transitional spaces as compared to class room. It establishes the importance of transitional spaces in learning Architecture subjects. The overall increase in learning

in transitional spaces over class room situation was to the extent of **9.86%** which is found to be significant.

• Distribution Of Respondent Students According to Activates Performed in Different Transitional Spaces and Informal Learning Level

In order to examine the effect of various activities conducted in transitional spaces on informal learning, the composite index of informal learning of each student was workout and then respondent's students were distributed in different category on the basis of

mean level of learning. The results obtained are presented in **Table 11**.

Table 11. Effect of Activities Conducted in Transitional Spaces on Informal Learning of Students

Sr.No.	Transitional Space	Characteristics of Transitional Spaces	Learning Activities	No. of Students	Mean Levels of Informal Learning (%)
1	Courtyard	Octagon,20%, Open to sky, Seating Arrangements for students, centrally located in college building, centrally located in college building, Hard,1:2, Open Space, Electrical Facility/ Wi-Fi	Model Making Activity	23	77.3
2	Amphitheatre	Octagon, Open to sky, Seating Arrangements for students, Hard,1:2, Open Space. Electrical Facility/ Wi-Fi, Near to Canteen,5%	Students Presentation	22	73.2
3	Common Area	Notice Board, Seating Arrangements for students,20%, 1:4, Octagon, centrally located in college building, Semi Open Space, Paneling, Hard, Rectangle, Electrical Facility/ Wi-Fi, At Entrance of Building, Near to Class Room,1:5, Enclose Space, Level Difference	Work shop	22	73.2
4	Student's Plaza	Octagon,20%, Open to sky, Seating Arrangements for students, centrally located in college building, Hard,1:2, Rectangle, Open Space, Electrical Facility/ Wi-Fi, Square	Model Making Activity	11	74.2
5	Corridors	1:4,20%, Seating Arrangements for students, Notice Board, centrally located in college building, Semi Open Space, Hard, Paneling, Rectangle, Near to Amphitheatre, Electrical Facility/ Wi-Fi, At Entrance of Building, Near to Class Room, Near to Canteen,1:5, Level Difference, Enclose Space	Students Presentation	12	70.6

It is observed for table 11 that model making activity conducted in courtyard and student's plaza were found to be most effective activity and exhibited highest informal learning i.e., 80.3 % and 79.2 % respectively followed by Jury presentation activity in Amphitheatre (73.2%) and corridors (72.6%). Further, it is observed that workshop activity presented in common area has shown relatively low level of informal learning (70.6%). Thus, it may say that, overall learning is relatively more with in model

making activity conducted in courtyard and student plaza.

4. Conclusions

The results of the study concluded that considering the change from close space learning to open space learning (transitional spaces) and also supporting the formal education there is a need for studying important informal learning spaces in college campus.

Amongst different transitional spaces courtyard, amphitheatre, common area and verandas were found to be most important transitional spaces in college campus for conducting informal learning activities. Informal learning activities which equip students with general Architectural knowledge and design skill need to be identified. Ten activities were identified and used in experiments among them model making, student presentation and workshop play higher effective role in providing informal learning. Overall increase in learning level was observed in transitional spaces as against classroom. It is then recommended that informal learning activities should be enhanced for improving student's Architectural design skill. The observations are as follows: -

The effect of transitional spaces and learning activities conducted in transitional spaces exhibited that, Student Plaza followed by common area and Amphitheatre play an effective role in increasing informal learning through model making and student presentation activities.

Overall, 9.86 percent increase in learning level was observed in transitional spaces as against class room situation.

Amongst different transitional spaces, courtyard, Amphitheatre, common area and verandas were found to be ranked high on the basis of mean score. Informal learning activities like Students presentation, model making and workshop play higher effective role in providing informal learning in Architecture subjects.

The increase / change in informal learning was tested using z test and it was found significant at 1 % level.

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