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4.3 Analysis of Student Learning:

4.4 Summary:
4.1 Introduction:
This study involves four sets of data analysis for each setting: analysis of the social, spatial characteristics of school i.e. classroom studied, researcher’s observation of student’s activities; analysis based on student’s questionnaire and analysis based on teacher’s questionnaire. The data collection has been done through various tools as explained in the earlier chapter. This chapter gives information of the classroom studied in each school. This chapter describes analysis of classrooms and its statistical findings and summary.

4.2 Description and Analysis of Classroom:
The selected schools were coded to maintain the confidentiality of the data and the list of schools along with the coding has been attached in Appendix IV. During site visit the information collected was noted on school data sheets. Detailed survey of 31 schools was made and one classroom in each schools was studied based on sampling as explained in the research methodology in Chapter - 3.

All measurements were taken on school days (Monday to Saturday) as per time allotted by the school authorities. From the classroom, dimensions and other spatial characteristics like classroom area, classroom proportions, percentage of window with respect to floor area was calculated. The parameters were grouped as mentioned in table no.3.5. in Chapter – 3.

The study focused on documentation of real conditions of classroom; the factual data or each classroom setting and the data was compiled for further analysis (Refer Appendix no. V). Appendix VII gives information about the norms followed for analysis of classroom and school for each parameter (norms finalized based on literature review). The description of the selected classroom provides brief information of school, classroom layout, sketch view or photograph and the observations based on social spatial data of each classroom (Refer Appendix VI). The following graph no. 4.1 presents the overall picture of sample considering the parameters analyzed together. The schools have been arranged in ascending order of satisfaction of parameters.
The satisfaction parameters are grouped in green colour and the non satisfaction parameters are grouped in red colour in the above graph no. 4.1. After compilation of data and analyzing, it was found that in majority of schools the parameters like classroom proportion, two doors to each classroom, number of fans in classroom are not as per norms. Following visuals gives glimpses of schools studied.

**Figure No. 4.1 Classroom essentials -- Flexibility in classroom arrangement**

Students working in group  
Tables are stacked in corner

(Source: Field Work)
Figure No. 4.2 Classroom fittings

Wooden picture rail  Built in storage  Student’s chalkboard
(Source: Field Work)

Figure No. 4.3 Classroom environmental conditions

Window placement on opposite side of black board
(Source: Field Work)

Figure No. 4.4: Corridor, amenities

School ground with semi covered stage  paved front setback as play area
Entrance to ground used as a stage  Well maintained ground but restricted access
(Source: Fieldwork)
Figure no.4.5 Corridor

A variation in width and windows opening into corridor – hindrance in movement

(Source: Field Work)

The explanation for each school in detail with a graph indicating satisfying parameters per group, observations and opinion based on field study and users is given below.

4.2.1 School A:

Graph No. 4.2: Satisfaction of Parameters – School A

(Source: Primary Data)

A Classroom Essentials: Considering student strength of class as 76, the required area per student is not available in class.

B Classroom fittings: Distance from chalkboard is below the standard norms as
more number of desks has been accommodated in the classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps.

C Environmental Condition: Number of fans and light fittings are insufficient. Studied classroom was on first floor also classes are conducted in morning shift but light on student’s desk was from right shoulders.

D Corridor and Amenities: As singly loaded corridor had windows opening onto it; its hindrance for free movement of students. Normally windows are closed during recess timing. Corridor overlooks central covered common space; students from upper level classes observe the activities during free time. School play ground with separate area with play instruments was attraction during recess as well as before and after school hours.

E Though it is an Aided school; as per school policy Midday meal is served thrice a week.

4.2.2 School B:

Graph No. 4.3: Satisfaction of Parameters – School B

(Source: Primary Data)

A Classroom Essentials: Though the area of classroom is satisfactory, number of desks is more in class because student strength of class is 58.

B Classroom fittings: These are not present in the classroom expect base of
chalkboard.

C **Environmental Condition:** Number of fans and light fittings are insufficient; studied classroom was on ground floor with nearby buildings with setback as 1.5m.

D **Corridor and Amenities:** As singly loaded corridor had windows opening onto it, it was hindrance to free movement of students. Students play on paved area so school play ground is a requisite.

E Midday meal is served every day in common space except monsoon. More school size gives a sense of overcrowding as expressed by 54 percent of the students. Student strength, cleanliness in the school premises, parents contribution etc. are concerns of teachers along with immediate requirement for display of colourful pictures, separate small board for students to write etc..

4.2.3 School C:

**Graph No. 4.4: Satisfaction of Parameters – School C**

(Source: Primary Data)

A **Classroom Essentials:** Since student strength of class as 60, the required area per student is available in class.

B **Classroom fittings:** Classroom did not have desirable fittings, storage space, and children’s chalkboard as school runs in two shifts teachers felt need of storage in class.
C **Environmental Condition**: Studied classroom was on second floor; light in classroom was sufficient but light on student’s desk was from right shoulders. Number of fans was insufficient.

D **Corridor and Amenities**: The doubly loaded corridor had ventilators running along the corridor. Play space in stilt floor with built in stage was used by students during recess as well as before and after school hours.

E 59 percent students are of the opinion that their school building is over crowded. Midday meal is served everyday in corridor; students eat their tiffin in classroom. 95 percent students say that their classroom is clean before they enter. Teachers feel that playground according to student strength is necessary for students and school walls should be painted with colorful pictures, good thoughts etc.

### 4.2.4 School D:

**Graph No. 4.5: Satisfaction of Parameters – School D**

(Source: Primary Data)

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(Source: Primary Data)

A **Classroom Essentials**: Since student strength of class as 64, the area per student is available in class.

B **Classroom fittings**: All fittings are provided as per SSA norms except minimum distance from board which is not maintained

C **Environmental Condition**: Studied classroom was on ground floor; light in classroom was sufficient due to placement of windows on both sides.
D Corridor and Amenities: Easy access to ground was an asset; common prayer session was possible as the school was a ground storied structure.

E 100 percent students are of opinion that their school building is not over crowded. Midday meal is served everyday in corridor; students have their tiffin in classroom. 100 percent students disagree that water points, toilets are clean and functional in their school.

4.2.5 School E:

Graph No. 4.6: Satisfaction of Parameters – School E

(Source: Primary Data)

A Classroom Essentials: 100 percent student agreed that students can move about whenever and however they want in their class room. Student strength of class is 45 and hence the required area per student is available in class.

B Classroom fittings: Minimum distance from board and base of chalkboard are not maintained. Storage, display board and desirable fittings are also not provided.

C Environmental Condition: Studied classroom was on ground floor; light in classroom was sufficient due to placement of windows on both sides.

D Corridor and Amenities: Access to ground was easy. 100 percent students agree that they can move easily in corridors and also they play games in corridor.

E 100 percent students are of opinion that their school building is not over crowded. Midday meal is served everyday in school; students have their tiffin in classroom.
as well as in corridor.

4.2.6 School F:

Graph No. 4.7: Satisfaction of Parameters – School F

(Source: Primary Data)

A Classroom Essentials: Width of class is below the norm. 56 percent students feel that there isn’t plenty of space for them to move around in the classroom and work with others during class.

B Classroom fittings: Minimum distance from board and base of chalkboard are not maintained. Storage and desirable fittings are also not provided.

C Environmental Condition: Studied classroom was on second floor; light in classroom was sufficient but light on student’s desk was from right shoulders. Number of fans was not as per norms.

D Corridor and Amenities: Easy access to ground provided an opportunity to play. Corridor width was less as compared to norms.

E 100 percent students are of opinion that their school building is not over crowded. Midday meal is not served in school; students have their tiffin in classroom. 91 percent students say that their classroom and school facilities are clean.
4.2.7 School G:

Graph No. 4.8: Satisfaction of Parameters – School G

(Source: Primary Data)

A **Classroom Essentials:** 70 percent of students like arrangement of the classroom. Student strength of class is 35; the required area per student is available as per norms.

B **Classroom fittings:** Minimum distances from board and base of chalkboard are not maintained. Children’s chalkboard will have to be added in classroom satisfying all requirements as per SSA.

C **Environmental Condition:** Studied classroom was on second floor; light in classroom was sufficient but light on student’s desk was from right shoulders. Number of fans was not as per norms.

D **Corridor and Amenities:** Easy access to ground provided an opportunity to play. Corridor width was less as compared to norms.

E 100 percent students are of opinion that their school building is not over crowded. Midday meal is not served in school; students have their tiffin in classroom
4.2.8 School H:

**Graph No. 4.9: Satisfaction of Parameters – School H**

(SOURCE: PRIMARY DATA)

A  **Classroom Essentials**: The required area per student is available in class to properly accommodate the class. 67 percent students feel that there is plenty of space for them to move around in the classroom and work with others during class.

B  **Classroom fittings**: Except children’s chalk board and pin board for display; classroom had all necessary fittings.

C  **Environmental Condition**: Studied classroom was on second floor; light in classroom was sufficient but light on student’s desk was from right shoulders. Number of fans was insufficient.

D  **Corridor and Amenities**: The singly loaded corridor with 1.2 m high parapet walls overlooks central space. School play ground with separate area with play instruments was attraction during recess as well as before and after school hours. 87 percent students believe that corridors are easy to move from one place to another with their friends.

E  59 percent students are of opinion that their school building is over crowded. Though school is non aided school as a policy; packed nutritious food items are served thrice a week as Midday meal. Students eat their tiffin in classroom.
4.2.9 School I:

Graph No. 4.10: Satisfaction of Parameters – School I

(Source: Primary Data)

A **Classroom Essentials**: The required area per student is available in class to properly accommodate the class.

B **Classroom fittings**: Minimum distance from chalkboard is not maintained. Except children’s chalk board and desirable fittings the classroom had all other necessary fittings.

C **Environmental Condition**: Studied classroom was on ground floor; number of fans and light fittings are insufficient. Black board is not placed on adjacent walls so light direction on student desk is not proper (refer appendix no.VI).

D **Corridor and Amenities**: School play ground was used during recess as well as before and after school hours. Width of doubly loaded corridor allowed free movement of students and 55 percent of the students agree to same.

E Midday meal is not served in school as it is a Non Aided school.
**4.2.10 School J:**

**Graph No. 4.11: Satisfaction of Parameters – School J**

(Source: Primary Data)

**A  Classroom Essentials:** Area of classroom is less than norms so also is the width of the classroom. With respect to student strength of class, the required area per student is not observed still 54 percent students feel they have space to move.

**B  Classroom fittings:** Distance from chalkboard is below the standard norms as more number of desks has been accommodated in the classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps.

**C  Environmental Condition:** The number of fans and light fittings are insufficient. The studied classroom was on first floor and classes are conducted in afternoon shift. 56 percent students feel that light quantity was sufficient but daylight light is coming over right arm.

**D  Corridor and Amenities:** Less corridor width was a barrier to movement, 96 percent students agree that they play many games in corridors also. Good playground in school is a requirement for physical education classes, as expressed by teachers and students.

**E  Midday meal is served every day.**
4.2.11 School K:

Graph No. 4.12: Satisfaction of Parameters – School K

(Source: Primary Data)

A Classroom Essentials: Teachers were of opinion that changes in school should be made in accordance with the SSA rules prescribed by the government mainly for classroom. Considering student strength of class, the required area per student is not available in class.

B Classroom fittings: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in the classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps.

C Environmental Condition: The number of fans and light fittings are insufficient. The studied classroom was on first floor and classes are conducted in afternoon shift. 84 percent students feel that light quantity was sufficient but daylight was coming over right arm.

D Corridor and Amenities: Normally windows opening into corridor were closed. Corridor overlooks central covered common space; students from upper level classes observe the activities during free time. Play ground with marked area for Volley Ball, Kho - Kho was available during recess as well as before school hours.

E Stilt floor area is used for serving Midday meal every day.
4.2.12 School L:

Graph No. 4.13: Satisfaction of Parameters – School L

(Source: Primary Data)

A Classroom Essentials: The required area per student is available in class because student strength of class is 28. This allowed flexibility in layout as seen.

B Classroom fittings: All fittings are provided as per norms except desirable fittings.

C Environmental Condition: Studied classroom was on ground floor; 71 percent students feel that they have proper lighting on writing desks. Placement of windows on both sides is seen but windows opening in corridor are always closed.

D Corridor and Amenities: Central paved area acts as play ground during recess as well as before and after school hours.

E Midday meal is served everyday in corridor; students have their tiffin in classroom. 100 percent students disagree that water points, toilets are clean and functional in their school.
4.2.13 School M:

Graph No. 4.14: Satisfaction of Parameters – School M

(Source: Primary Data)

A  **Classroom Essentials:** Considering student strength of class as 50, the required area per student is not available in class. 50 percent teachers agree and 17 percent teachers strongly agree that classroom allows flexibility of arrangement.

B  **Classroom fittings:** Distance from chalkboard is below the standard norms as more number of desks have accommodated in classroom.

C  **Environmental Condition:** Number of fans and light fittings are sufficient. 70 percent student think classroom has proper light for writing. Windows are on both sides of classroom. Light was coming over right shoulder of students.

D  **Corridor and Amenities:** Students preferred using ground and stilt floor area during recess. Less interactive activities were observed in corridor.

E  Midday meal is served every day.
4.2.14 School N:

**Graph No. 4.15: Satisfaction of Parameters – School N**

(Source: Primary Data)

A **Classroom Essentials**: Exceeding student strength of class as 52, the area per student is less in class as observed.

B **Classroom fittings**: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in the classroom. All fittings are provided as per norms except desirable fittings.

C **Environmental Condition**: Though number of fans is less than norms, 89 percent students feel their classroom is well ventilated as classes were conducted in morning shift. Light fittings are sufficient but light were coming over right shoulder for this classroom.

D **Corridor and Amenities**: The singly loaded corridor overlooks central paved court yard and the same area is used as play area.

E Midday meal is served every day.
4.2.15 School O:

Graph No. 4.16: Satisfaction of Parameters – School O

(Source: Primary Data)

A Classroom Essentials: Classroom dimensions vary with the norms. 57 percent students feel that there isn’t plenty of space for them to move around in the classroom and work with others during class.

B Classroom fittings: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Pin boards on rear wall hold all mathematics charts and other related maps.

C Environmental Condition: The number of fans and light fittings are insufficient; studied classroom was on second floor and 77 percent students feel that light quantity was sufficient but daylight is coming over right arm.

D Corridor and Amenities: Play ground does not exist in school. Teachers have expressed need of play ground considering student development. Partially covered setback area serves as multipurpose space.

E As a Non Aided School, Mid Day Meal is not served.
4.2.16 School P:

Graph No. 4.17: Satisfaction of Parameters – School P

(Source: Primary Data)

A Classroom Essentials: Considering student strength of class as 45, the required area per student is comparatively less in class.

B Classroom fittings: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. All fittings are not provided as per norms except storage.

C Environmental Condition: Number of fans and light fittings are as per norms. 100 percent student think classroom has proper light for writing. 100 percent students feel their classroom is well ventilated.

D Corridor and Amenities: As singly loaded corridor overlooks central courtyard; students from upper level classes observe the activities during free time. School playground was used during recess only.

E Midday meal is not served in school as it is a non aided school.
4.2.17 School Q:

Graph No. 4.18: Satisfaction of Parameters – School Q

(Source: Primary Data)

A **Classroom Essentials:** Student strength of class is 32; the required area per student is available in class. 66 percent student disagreed that students can move about whenever and however they want in their class room.

B **Classroom fittings:** Majority fittings are not provided as per norms except storage space.

C **Environmental Condition:** Studied classroom was on ground floor and light in classroom was sufficient due to placement of windows on both sides.

D **Corridor and Amenities:** Paved area in front of school and easy access to play ground was much appreciated by students.

E 100 percent students are of opinion that their school building is not over crowded. Midday meal is served everyday in school; students have their tiffin in classroom as well as in corridor.
4.2.18 School R:

Graph No. 4.19: Satisfaction of Parameters – School R

(Source: Primary Data)

A Classroom Essentials: Though student strength of class is as per norms, the area of classroom was below the norm. 90 percent of students liked arrangement of the classroom.

B Classroom fittings: All fittings are not provided as per norms except children’s chalkboard.

C Environmental Condition: Number of fans and light fittings are not as per norms. 57 percent students feel that outside noise disturbs the class.

D Corridor and Amenities: As singly loaded corridor overlooks central playground; students from upper level classes observe the activities during free time. School playground is an asset during recess as well as before school hours.

E Midday meal is served in school every day.
4.2.19 School S:

Graph No. 4.20: Satisfaction of Parameters – School S

(Source: Primary Data)

A **Classroom Essentials**: Since number of desks were more than desired in classroom; student strength of class is 32 and the required area per student is not available in class.

B **Classroom fittings**: All fittings are not provided as per norms.

C **Environmental Condition**: Studied classroom was on first floor; light in classroom was sufficient due to placement of windows on both sides. Especially MS Square mesh is fixed throughout the room length along corridor.

D **Corridor and Amenities**: Corridors were narrow, but school ground and play area marked as per sports like kho-kho were frequently accessed by students.

E Midday meal is served in school; students have their tiffin in classroom as well as near temple.
4.2.20 School T:

Graph No. 4.21: Satisfaction of Parameters – School T

(Source: Primary Data)

A Classroom Essentials: 67 percent teachers agree and 17 percent teachers strongly agree that class size permits flexibility. Considering student strength of class as per norms, the area per student was adequate.

B Classroom fittings: All fittings are provided as per norms except children’s chalkboard.

C Environmental Condition: Number of fans and light fittings are not as per norms. 95 percent of students agree that every student has proper light for writing. 37 percent students feel that outside noise disturbs the class even if schools abut a heavy traffic road.

D Corridor and Amenities: The singly loaded corridor overlooks central play paved area used as ground. School play ground is an asset with well maintained stage used for many activities.

E Midday meal is served in school every day.
4.2.21 School U:

Graph No. 4.22: Satisfaction of Parameters – School U

(Source: Primary Data)

A Classroom Essentials: Area of classroom was not as per norm. Though student strength of class is as per norms the required area per student is not observed.

B Classroom fittings: All fittings are not provided as per norms except children’s chalkboard.

C Environmental Condition: Number of fans and light fittings are not as per norms. 57 percent students feel that outside noise disturbs the class.

D Corridor and Amenities: As singly loaded corridor overlooks central playground; students from upper level classes observe the activities during free time. School play ground is an asset with well maintained stage.

E Midday meal is served in school every day. Midday meal is served at multipurpose hall during summer.
4.2.22 School V:

Graph No. 4.23: Satisfaction of Parameters – School V

(Source: Primary Data)

A **Classroom Essentials:** Classroom being circular in shape; students sit on floor with small tables sized 600 x 450 mm in front. This allows lot of variation in classroom layout.

B **Classroom fittings:** Pin board running to full length of two adjacent walls of classroom provides ample display. Blackboard is placed on a movable stand.

C **Environmental Condition:** Though the number of fans is not as per norm the classroom walls are well ventilated with brick net (JALI).

D **Corridor and Amenities:** School ground with a designed play area with used vehicle tyre was an asset. Semi covered space connecting two classrooms provides opportunity for group work.

E Midday meal is not served.
4.2.23 School W:

Graph No. 4.24: Satisfaction of Parameters – School W

(Source: Primary Data)

A **Classroom Essentials:** Student strength was as per norm. Classroom is designed with 8200 x 6600 mm classroom dimensions specifically for flexibility whenever required.

B **Classroom fittings:** Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Pin board running full length of two adjacent walls of classroom provides ample display.

C **Environmental Condition:** Number of fans and light fittings are as per norms; 68 percent students say that classroom fans are always put on.

D **Corridor and Amenities:** As observed by researcher, a large school ground was often used by students during recess. Steps provided to approach upper level of ground act as amphitheatre for activities. A special play with a designed play instrument with used vehicle tyres was an asset. Primary classes (I & II) have direct access to this play area. Adjoining compound wall is painted by student themselves every year initializing more attachment to this area.

E Midday meal is not served being a non aided school.
4.2.24 School X:

Graph No. 4.25: Satisfaction of Parameters – School X

(Source: Primary Data)

A  **Classroom Essentials:** Student strength was as per norm but classroom area does not follow the norms.

B  **Classroom fittings:** Both sidewall of classroom was partially painted in black creating a children’s chalk board at 1.35 m from finished floor level. Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom.

C  **Environmental Condition:** Number of fans and light fittings are not as per norms. 86 percent students feel that outside noise disturbs the class.

D  **Corridor and Amenities:** Classrooms are placed in a row; absence of corridor makes it difficult to approach other classes during monsoon.

E  Midday meal is served in school every day.
4.2.25 School Y:

Graph No. 4.26: Satisfaction of Parameters – School Y

(Source: Primary Data)

A Classroom Essentials: 91 percent students feel that there is plenty of space for them to move around in the classroom and work with others during class, although student strength of class is as per norms, the classroom area is below norm.

B Classroom fittings: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps. Students work is kept in built in storage in classroom.

C Environmental Condition: Number of fans and light fittings are not as per norms. 57 percent students feel that outside noise disturbs the class.

D Corridor and Amenities: As singly loaded corridor overlooks central playground; students from upper level classes observe the activities during free time. School play ground is an asset during recess as well as before and after school hours.

E Midday meal is served in school every day.
4.2.26 School Z:

Graph No. 4.27: Satisfaction of Parameters – School Z

(Source: Primary Data)

A **Classroom Essentials**: Considering student strength of class as per norms, the area per student 1.11 sq. m is adequate.

B **Classroom fittings**: Pin boards hold students work and charts. Both sidewall of classroom was partially painted in black creating a children’s chalk board at 1.35 m from finished floor level.

C **Environmental Condition**: Number of fans and light fittings are as per norms. 92 percent student think classroom has proper light for writing as light fittings are always put on. Windows are on rear sides, light direction does not suffice required criteria. 97 percent students feel that their classroom is well ventilated.

D **Corridor and Amenities**: As singly loaded corridor overlooks central playground; students from upper level classes observe the activities during free time. School playground is an asset during recess as well as before and after school hours.

E **Midday meal**: Midday meal is served in school every day. Overall maintenance of building, toilets in particular is needed, as expressed by teachers and students also.
4.2.27 School AA:

Graph No. 4.28: Satisfaction of Parameters – School AA

(Source: Primary Data)

A Classroom Essentials: Considering student strength of class as per norms, the required area per student is adequate.

B Classroom fittings: Distance from chalkboard is below the standard norms still this norm can be less significant as majority of class teaching is done using digital media because it is an e-learning school. Pin boards hold students work, charts. Classroom desks are provided with storage facility at the base. As observed by researcher students preferred keeping school bags in locker instead of carrying home.

C Environmental Condition: Number of fans and light fittings are as per norms. 97 percent student think classroom has proper light for writing. Windows are on rear sides, light direction does not suffice required criteria. 97 percent students feel that their classroom is well ventilated.

D Corridor and Amenities: As singly loaded corridor overlooks central courtyard; students from upper level classes observe the activities during free time. School play ground with separate area with play instruments was attraction during recess as well as before and after school hours.

E Midday meal is served in school every day.
4.2.28 School AB:

**Graph No. 4.29: Satisfaction of Parameters – School AB**

(Source: Primary Data)

A **Classroom Essentials**: 82 percent of students like arrangement of the classroom although the required area per student is comparatively less in class.

B **Classroom fittings**: Pin boards hold students work and charts. 97 percent students don’t like to draw on classroom walls / blackboard. School had various display areas in corridor with notices, student work, and newspaper cutting adding colours in corridor to which 67 percent teachers agree while 33 percent teachers strongly disagree.

C **Environmental Condition**: Number of fans and light fittings are as per norms .70 percent student think classroom has proper light for writing. Windows are on both sides of classroom; light was coming over right shoulder for this classroom. 97 percent students feel that their classroom is well ventilated.

D **Corridor and Amenities**: As singly loaded corridor overlooks central courtyard; students from upper level classes observe the activities during free time. School play ground with separate area with play instruments was attraction during recess as well as before and after school hours.

E Midday meal is not served in school as it is a Non Aided School.
4.2.29 School AC:

Graph No. 4.30: Satisfaction of Parameters – School AC

(Source: Primary Data)

A **Classroom Essentials**: Considering student strength of class as 68, 70 percent student disagreed that students can move about whenever and however they want in their class room, while 30 percent student agreed to the statement.

B **Classroom fittings**: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps.

C **Environmental Condition**: Number of fans and light fittings are sufficient. 70 percent student think classroom has proper light for writing. Windows are on both sides of classroom but light were coming over right shoulder for this. Rear windows are closed because of traffic nuisance.

D **Corridor and Amenities**: 3.0 x 3.5 m staircase landing extends as spillover space for four classes on each floor. 60 percent students agree that they do not spend time with their friends on school grounds as setback area of school serves as play area with play instruments.

E Midday meal is served every day.
4.2.30 School AD:

Graph No. 4.31: Satisfaction of Parameters – School AD

(Source: Primary Data)

A **Classroom Essentials**: 68 percent of students like arrangement of the classroom. 100 percent teachers disagree that age of building have relation to students’ achievement.

B **Classroom fittings**: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps. Rear wall of classroom was partially painted in black creating a children’s chalk board at 1.35 m from finished floor level.

C **Environmental Condition**: The number of fans and light fittings are insufficient; studied classroom was on first floor and classes are conducted in afternoon shift. 84 percent students feel that light quantity was sufficient but daylight coming over right arm.

D **Corridor and Amenities**: Normally windows opening into corridor were closed. Corridor overlooks central covered common space; students from upper level classes observe the activities during free time. Central paved area acts as play ground during recess as well as before and after school hours.

E Midday meal is served every day.
4.2.31 School AE:

Graph No. 4.32: Satisfaction of Parameters – School AE

(Source: Primary Data)

A Classroom Essentials: Considering student strength of class as 52, the required area per student is available in class. 88 percent of students like arrangement of the classroom.

B Classroom fittings: Distance from chalkboard is below the standard norms as more number of desks has been accommodated in classroom. Wooden picture rail running along rear wall holds all mathematics charts and other related maps.

C Environmental Condition: The number of fans and light fittings are sufficient; studied classroom was on first floor also classes are conducted in morning shift. But windows were placed on opposite sides of black board. 58 percent students are of view that there is not much noise coming from outside to disrupt their class.

D Corridor and Amenities: As singly loaded corridor overlooks central paved court yard; students from upper level classes observe the activities during free time. School play ground with separate area lawn was attraction during recess as well as before and after school hours.

E As it is a Non Aided School, Mid Day Meal is not served.
4.3 Analysis of Student Learning:

Graph No. 4.33: Students Academic Performance

The graph no. 4.33 reveals the information regarding the academic performance of the students of the observed class. The average of the continuous evaluation of academic performance of the students obtained from the class teacher has been presented here. The percentages above 70 have been represented in green colour whereas the percentages
below 70 and above 50 have been represented in mustard colour and the percentages below 50 have been represented in red colour.

The school wise analysis of the academic performance has been presented. This performance is related to the 7th standard students whose classroom was studied. As per the researchers opinion the average academic performance of the class is based on the available resources, amenities and facilities regarding the spatial characteristics. The researcher believes that an improvement in the spatial characteristics with respect to the satisfaction of the norms prescribed by the SSA, will lead to an improvement in learning.

4.4 Summary

The schools were selected randomly and classroom covered were mainly VII standard as allowed by school. Spatial and social characteristics are as explained above with factual information provided in Appendix V.

**Graph No. 4.34: Satisfaction of Parameters – Classroom Essentials**

Teacher centered learning pre dominates the layout of classrooms. Variety is observed in spatial characteristics of classroom. Classroom strength was a major factor in altering layout. Increased strength changed teacher – student ratio (1:40) as well as reducing the distance between two rows of desk or reducing distance between first row and blackboard. The above graph no. 4.34 gives an overview of satisfaction of parameters of classroom essentials out of a total of 5 parameters studied in sample schools.
Awareness towards the use of classroom fittings like pin board, children’s chalkboards was not observed. The graph 4.35 clearly represents the satisfaction of parameters of classroom fittings out of the total of 8 parameters in sample studied. It was found during informal discussions with teachers and principals that children’s chalkboard at times becomes a discipline issue. Weight of school bag is a concern. Majority of teachers have the same opinion that lockers should be made available to students and even the Government of Maharashtra is thinking on enforcing provision of lockers in school.

Graph No. 4.35: Satisfaction of Parameters – Classroom Fittings

(Source: Primary Data)

Graph No. 4.36: Satisfaction of Parameters – Environmental Conditions

(Source: Primary Data)
The above graph no. 4.36 gives an overview of satisfaction of parameters of classroom environmental conditions out of a total of 7 parameters studied in sample schools. Light and ventilation parameters changed as per layout; morning and afternoon shift also have an effect on these parameters considering composite climate of study area. Light direction was also a factor which at times forces to use artificial lighting. Provision of light and fan points in classroom was also not followed as per norms.

Graph No. 4.37: Satisfaction of Parameters – Corridor and Amenities

(Source: Primary Data)

The above table shows the satisfaction of parameters regarding the corridor and amenities out of a total of 3 parameters. Varying width of corridors altered the activities during free time as observed by the researcher as can be seen from graph no. 4.37. Play areas comprised of paved setback area, play ground, central courtyard, parking spaces etc. In spite of the different school management types, the similarity was observed across the classroom in terms of teaching and activities during free time leading student usage of the space by students. With the available facilities and amenities, the students seem to be satisfied. But if they are provided with proper facilities and amenities as specified in the norms the academic performance of the students will increase. This chapter provides background information for the data analysis chapter where user’s perception about their school and analysis of social, spatial characteristics of classroom covering total sample is discussed in detail.