Status Of Classrooms And The Impact Of Insufficient Classroooms In Elementary Schools With Special Reference To Jorhat District Of Assam, India

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Abstract

Availability of classroom is one of the main infrastructures that a school needs. Insufficient classrooms led to overcrowded classes causing difficulties in teaching learning process as well as maintaining discipline in the school. As per UDISE records- about 60 percent of lower primary schools and 30 percent of Upper primary schools lack sufficient number of classrooms in Assam. Therefore, this study is an attempt to critically examine the status of classrooms, there conditions as well as impact upon elementary education at grass root level i.e., Education block level with special reference to Jorhat district of Assam.

Keywords: Classroom, Infrastructure, Status, Impact and Elementary Education.

1 Introduction

School infrastructure is a key base for effective teaching and learning in schools. The infrastructure forms a very significant component in ensuring quality education (Swaminathan, A et al., 2020). It is considered as a human right to provide not only education but quality education to each and every citizen. Many researchers have revealed that quality of education is impossible without the quality of physical infrastructure in the schools (as per National Education Policy 1980-2010). Researchers have also revealed that due to absence of

sufficient infrastructure in school cause decline in students' enrollment (Nasuna, G. et al., 2022) and students suffer from disease or various health related problems (Djannah, S.N. and Matahari, R. 2020). The major infrastructures required by an elementary school are sufficient classrooms, school building, electricity, drinking water facilities, boundary wall, library, kitchen shed etc.

Availability of sufficient number of classrooms becomes one of the foremost significant infrastructures among all the infrastructures facilities required by an elementary school to perform its functions. Classrooms are very significant for school activities. Classrooms are space with all required facilities like teaching learning materials, chair, table, blackboards etc. which facilitates teaching and learning activities (Fatima, Z.A., Mushtaq, M., and Fatima, Q.A. 2019). Without sufficient number of classrooms in a school, it is very difficult to manage classes by the teachers. Lack of classroom management results in lack of teacher's management skills and learner's attitude (Ahmad, M. 2021). Similarly, lack of classroom management skills degrades the quality of school environment.

Classroom environment refers to utilization of available physical, infrastructural facilities and maintenance of discipline in classroom for effective teaching. It comprises of social, physical and emotional factors help in facilating teaching and learning process for achieving educational objectives (Ahmed, Tayyub and Ismail, 2020). Classroom environment is one of the most impactful issue in the education system of every level (Karner and Honing, 2021). Classroom environment has a positive impact on students' academic achievement as by provison of physical infrastructure like sufficient classroom,drinking water, toilets etc, students takemuch interest in classroom activities which help them to gain more marks in exams (Nugroho and Budi Wibowo, 2020). Classroom environment plays leading role in uplifting students learning and achieving national educational goals in due course of time (Ahmed, Tayyub and Ismail, 2020).

By keeping in mind, the above reviews, this paper is an attempt to trace out the status of classrooms in the elementary schools of Jorhat district of Assam along with the conditions as well as impact of insufficient classrooms in elementary schools or elementary level education.

2 Methodology:

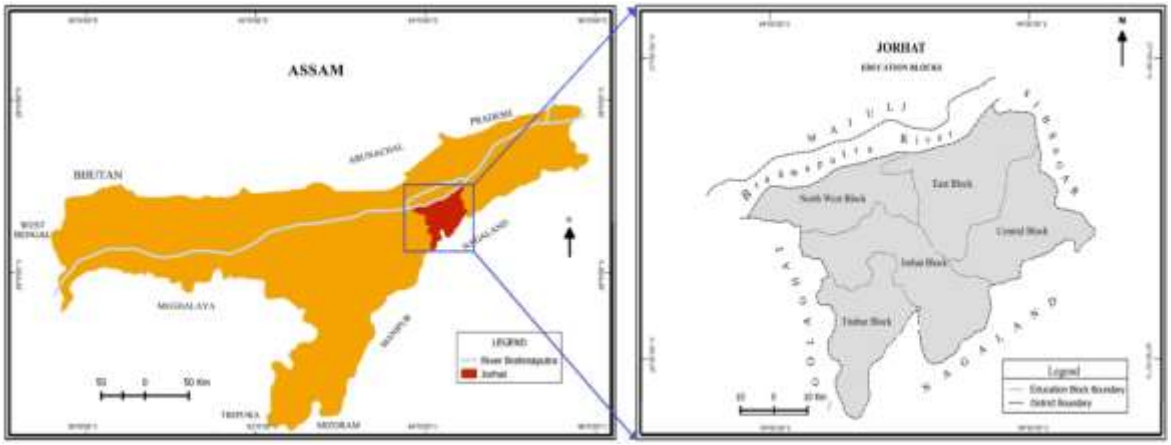
2.1) Research Design: The Research Method used in this study is Descriptive Research method which is a fact-finding research method with adequate interpretation.

2.2) Sampling Technique: Stratified Random Sampling technique is used in this study to draw out the samples. As samples, 30 Elementary Schools from all the Education Blocks of Jorhat district has been randomly selected to carry out this research work.

2.3) Data: Both Primary data and secondary data were used in this study. To collect the primary data, a tool of pre-structured set of questions known as 'Schedule' has been used. And to study the trend from past to present, data from secondary sources have been used. The secondary data were collected from District Elementary Education office, Sarva Shiksha Abhiyan reports and UDISE reports.

2.4) Statistical Method: Composite Development Index is used to identify the disparities among the education blocks of Jorhat district.

2.5) Study Area**:** Jorhat district of Assam has been selected as the study area for this research work. Jorhat district has five education blocks namely- North West Jorhat Block, East Jorhat Block, Central Jorhat Block, Titabar Block and Jorhat Block. The following map shows the education blocks of Jorhat district of Assam.



Map 1 - Study Area Map

3 Results and Discussion:

3.1 Availability of Classrooms in elementary schools of Jorhat district (in Percentage):

While talking about the number of classrooms available for the elementary school, it is considered that at least 05 classrooms for lower primary schools (1-5 standard) and 03 classrooms are required for running upper primary school (6-8 standard). Here, from the below graph it is clear that –

(a) Lower primary- North West block consists of 86 percent school with classroom below 3 and only 14 percent schools with 3 or more classrooms. Similarly, east block consists of cent percent schools with classrooms below 3, both Jorhat and Titabar block consists of 75 percent schools with classrooms below 3 and 25 percent school with more than 3 classrooms. Lastly central block consists of 80 percent schools with below 3 classroom and only 20 percent schools have 3 or more classrooms. It is observed that majority of lower primary schools have classrooms below 3.

(b) Upper primary-Both Jorhat and Titabar blocks have cent percent schools with 3 or more classrooms. While on the other hand, North West block has 80 percent schools with the 3 or more classrooms, east block with 75 percent schools having 3 or more classrooms and Jorhat block with 86 percent schools having3 or more classrooms. As observed it is found that, the maximum no of upper primary schools has classrooms above 3.

Moreover, autocorrelation of spatial distribution of classrooms in elementary schools shows that majority of the lower primary schools have classrooms below 3. Lower primary schools with more than 3 classrooms are very rare or found very less. And in upper primary, schools with classrooms below 3 are found very less and schools with above 3 classrooms are more.

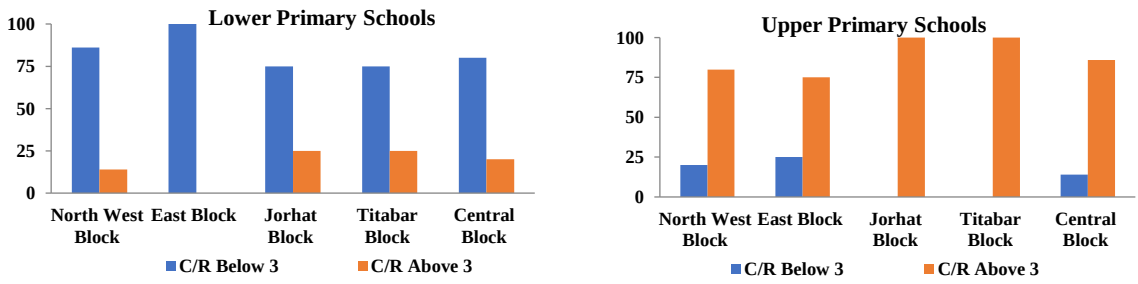


Fig 1: Availability of classrooms in Lower Primary and Upper primary schools (in %).

3.2 Condition of classrooms:

Conditions of classroom have categorized in three groups. There are RCC, Assam Type and Under Construction (major or minor). RCC refers to reinforced cement concrete rooms, and the Assam Type refers to concrete walls with tin roof rooms mainly found in Assam state of India.

In Lower primary-Jorhat block have 1 percent schools with RCC rooms, 90 percent schools with Assam type room and 9 percent schools with the need of major or minor construction. Similarly, Titabar block have 1 percent schools with RCC rooms, 84 percent Assam type rooms and 15 percent rooms with the need for construction. Then East block has 84 percent schools with Assam Type rooms and 16 percent rooms need construction. Lastly, both North West and Central block has 80 percent schools with Assam type classrooms and 20 percent rooms with the need construction.

In Upper primary-Jorhat block have 3 percent schools with RCC rooms, 90 percent schools with Assam type room and 7 percent schools with the need of major or minor construction. Similarly, Titabar block have 2 percent schools with RCC classrooms, 86 percent Assam type rooms and 12 percent rooms with the need for construction. Then North West block have 1 percent schools with RCC classrooms, 80 percent schools with Assam Type rooms and 19 percent rooms need construction. Lastly, both East and Central block have 1 percent schools with RCC classrooms, 86 percent schools with Assam type classrooms and 13 percent rooms with the need construction.

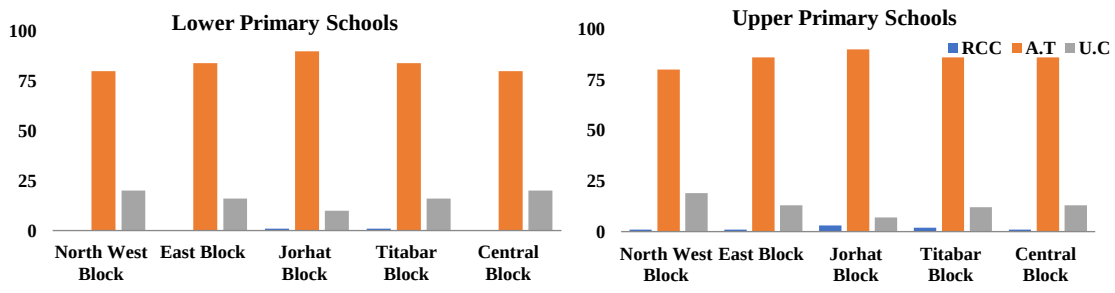


Fig 2: Condition of classrooms in Lower Primary and Upper Primary schools (in %).

Moreover, autocorrelation of spatial distribution of classroom conditions in elementary schools shows that majority of the lower primary and upper primary schools have classrooms with

Assam Type rooms. Hence, Assam Type classrooms are found to be in cluster whereas RCC rooms or classrooms with the need of construction are found very rarely or less randomly.

3.3 Developmental status of availability of Classrooms in elementary schools of Jorhat district from (before 2002 – 2018):

Though the rate of development is not sufficient, Elementary education has undergone many changes and development in Assam (Handique, 2020). The trend of development of classrooms in Jorhat district is also not different in this regard. Jorhat district has also showed development in terms of availability of classrooms in elementary schools.

(a) Lower Primary: as shown in figure 5, each education block has cent percent schools with classrooms below 3 before 2002. Later in 2002, the number of schools with more than 3 classrooms has increased to 20 percent in Jorhat and Titabar block. While in North West, East, Central block it has remained as earlier. In the year 2010, East block number of classrooms remained same as earlier and in Jorhat block the percentage has increased to 20 percent, in Titabar block the percentage of schools with 3 or more classrooms has increased to 25 percent and both North West and Central block has 10 percent schools with 3 or more classrooms. Lastly, in 2018, there was again a slight increase in the percentage of schools with 3or more classrooms except that of East block. In North West block the percentage has increased to 15 percent, in central block it has increased to 20 percent and in both Jorhat and Titabar block about schools with 3 or more classrooms has increased to 25 percent.

(b) Upper Primary: From the figure 6 it is made clear that, the average number of classrooms per schools has been increased in Upper primary schools of Jorhat district. Here, it is found that in North West block there were only 20 percent schools which have classrooms above 3 till 2002 but in 2018 the percentage has increased to 80 percent. Similarly East block had none of the schools with 03 or more classrooms before 2002 but in 2018 it has about 75 percent schools with 03 or more classrooms. Central block had zero schools with 03 or more classrooms before 2002 but in 2018 it has about 86 percent schools with 03 or more classrooms. After that Jorhat block had 33 percent and Titabar block had about 40 percent schools with 03 or more than 03 classrooms before 2002 but in 2018

both of them has cent percent schools with average of 03 or more classrooms per school.

Overall, from both the figures, it is clearly visible that though the numbers of classrooms are not sufficient but there is an increase in the availability of average number of classrooms in elementary schools in Jorhat district.

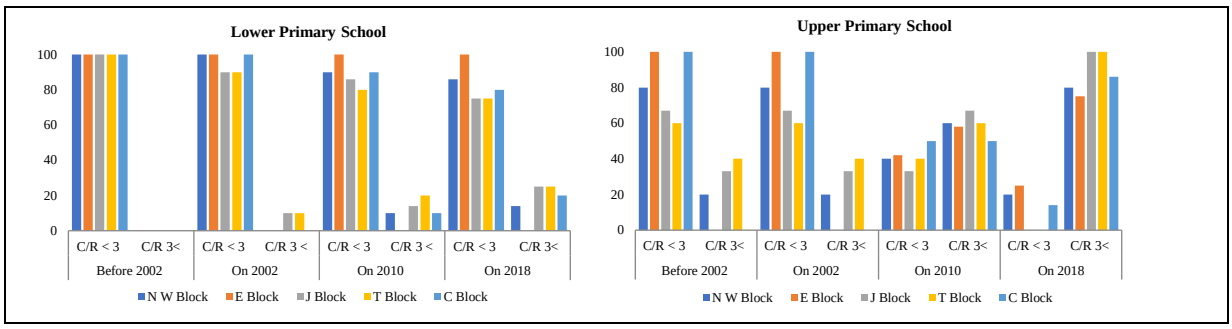
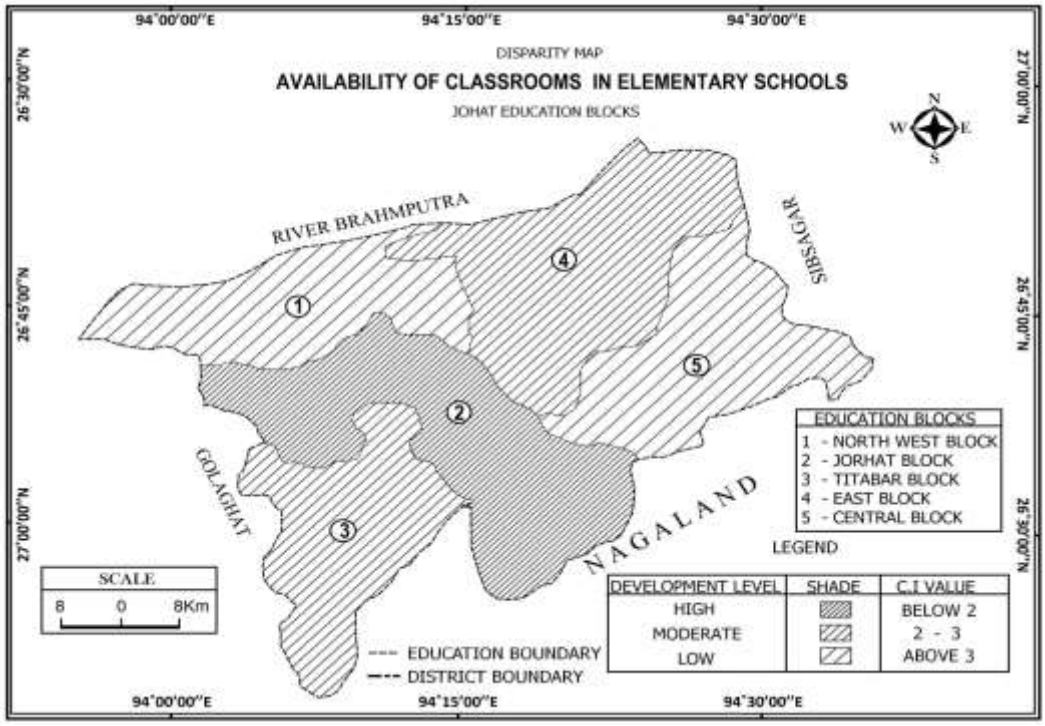


Fig 3: Availability of classrooms in Lower Primary and Upper Primary schools (in %).

3.4 Disparity:

Disparity in simple term refers to inequalities that exist between anything over surface of the earth. Though the availability of infrastructure is not equal in the elementary schools, there exist huge or multi-dimensional disparities in elementary education (Behera and Sahoo, 2019). The map below will make us more clearly about the disparities that exist among the Education blocks.

In terms of availability of classrooms in the elementary schools, their exits huge variations among the Education Blocks of Jorhat district of Assam. Although the availability of classrooms in the Elementary Schools are not sufficient all over but while comparing at block level, Jorhat Block ranks first with composite index below 2 and falls in the category of high level of development. Moreover, Titabar Block and East Block has composite index value in between 2 to 3 and falls in category of moderate level of development, and lastly, the Central Block and North West Block has Composite index value of above 3 and falls in the 3rd category of low level of development.



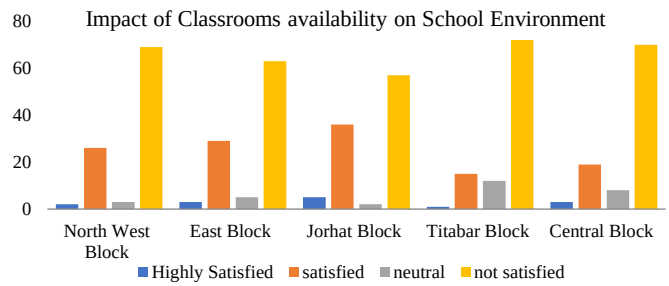
Map 2: Disparity map showing intra district disparities in classroom availability

3.5 Impact of insufficient classrooms:

There exists strong relationship between infrastructure and teacher - students' performance. The elementary schools are competing to meet the standard criteria for sufficient infrastructures to improve quality of the education (Santos and Capellini, 2021). Proper availability and access to infrastructure really matters in education process (Rizky, Krnati and Supadi, 2022), otherwise both students' as well as teacher does suffer and the quality of education ultimately degrades. This study reveals numerous impacts of insufficient classrooms in elementary schools. The major impacts are on school environment, teaching learning process and academic results. They are as below:

3.5.1) On School Environment: from this study it is found that due to lack of classrooms in elementary schools, the school environment becomes very unpleasant. Out of the 150 schools surveyed, majority of the respondents said due to lack of classrooms it is very difficult to maintain school environment pleasant for teaching or learning. It is found from this study that the teachers fail to maintain discipline among the students. There is hush and rush situation everywhere so the school environment does not allow discipline to maintain.

Interaction between students' also gets poor in unhealthy school environment (Sari and Yuce, 2020). The following bar diagram will help us to clearly understand the perception of respondents towards impact of insufficient classroom on school environment. And on the correlation graph it is clearly visible that the R^2 value is 0.728, which means there is a high relationship between availability of classrooms and school environment.



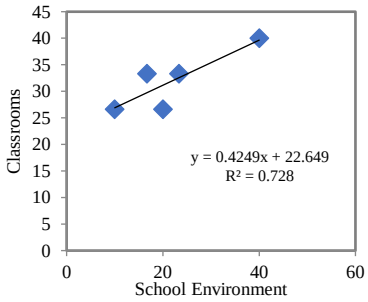


Fig 4: Perception of the respondents and correlation graph showing relation between Classrooms and School Environment

3.5.2) On Teaching Learning Process: Majority of the respondents says due to lack of classrooms, teachers fail to deliver their classes effectively as at the same time many classes are running. In simple words, too many classes in a single classroom with partition in between does not allow suitable conditions for proper teaching and learning process. The following bar diagram will help us to clearly understand the perception of respondents towards impact of insufficient classroom on Teaching Learning Process. And at the same time, the R^2 value of 0.982 reveals that there is a very high relationship between classrooms availability and proper functioning of Teaching Learning Process.

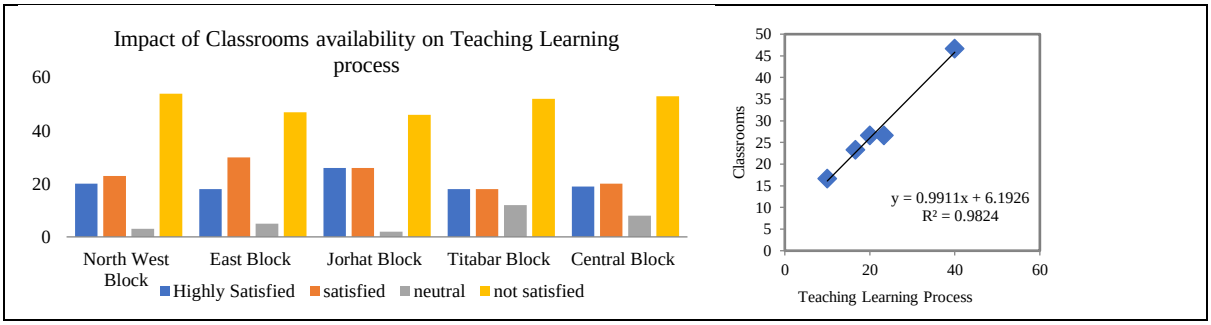


Fig 5: Perception of the respondents and correlation graph showing relation between Classrooms and Teaching Learning process

3.5.3) On Academics: From this study it is found that, due to insufficient classrooms in school, the academic performance of students gets affected. It is seen that due to lack of classrooms, partitions are used in the available classrooms. This creates lots of difficulties in learning among the students of each class. As many classes runs at the same time, students fail to concentrate and it cause disturbances in classroom learning environment. There is a very high effect of classroom learning environment on students' academic achievement (Sari and Yuce, 2020). Though students cannot fully concentrate in their class leads to poor academic results. The following bar diagram will help us to clearly understand the perception of respondents towards the impact of insufficient classroom on Academic results. And at the same time, the R^2 value of 0.825 reveals that there is a high relationship between classrooms availability and students' Academic results.

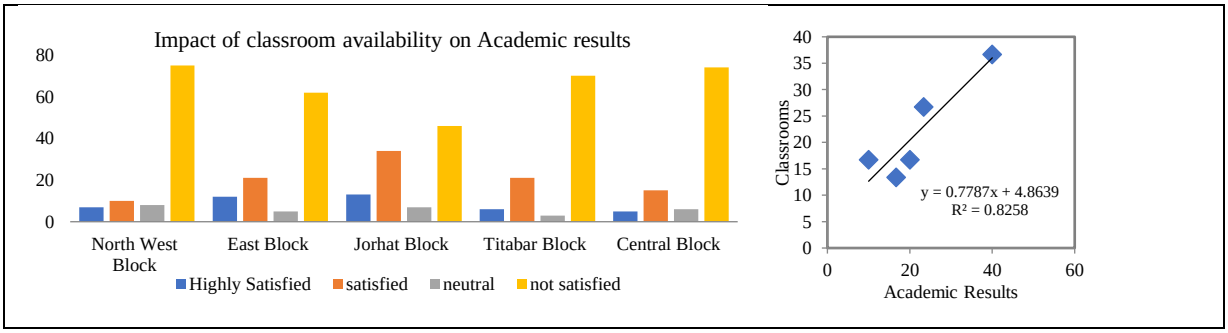


Fig 6: Perception of the respondents and correlation graph showing relation between classroom and Academic results

4 Conclusions:

To conclude, it can be said that Proper availability or management of school infrastructure is very significant. Classroom being the first and foremost significant infrastructure among all the infrastructures refers to the space

or room for conducting teaching learning activities. It is revealed that insufficient classroom effects creation of sound or healthy school environment, teaching learning process and academic outcomes. Researchers have found that due to lack of condusive classroom environment creates hindrances for effective teaching and better students'leaning.

In this study it is clearly revealed that about 75 percent of the Lower Primary schools and 20 percent of Upper primary schools have insufficient number of classrooms i.e., below 3 per school. In terms of condition or structure it is found that about 90 percent schools have Assam Type buildings. And there exist disparity among the education blocks. As per the study, Jorhat education block has the highest number of schools with sufficient number of classrooms as compared to other education blocks.

Moreover, Researchers have put forwarded models to plan for providing sufficient facilities and operating elementary schools. It can be said that schools with sufficient number of classrooms are more successful in providing quality education, creation of healthy school environment, performing well planned teaching learning activities and achieving good academic results, in comparison to those schools which lacks sufficient classrooms in school. Therefore, it is of foremost significance to provide sufficient classrooms or other required infrastructures in a school to maintain its functioning otherwise there will be only teachers left in public school one day.

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