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# Infrastructure and Primary School Students

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***Abstract:*** ***Nowadays, the focus on technological development has increased so much that consideration of the basic infrastructural development is being ignored. Not only in the primary schools but also in high school and colleges, infrastructure plays an important role in the development and nurturing of students. Especially the primary school is important to be considered since these years have a prominent role in the growth habits of the students. And school plays a principal role in this process. And if we consider the psychological aspects, infrastructure has a prominent effect as students spent most of their time in school itself. In these early ages, after parents and home, teachers and schools are the places that teach them a lot. The investment in infrastructural development is as vital as that in technological development. The different infrastructural elements include playgrounds, classrooms, laboratories, computer centres, co-curricular activity equipment, etc. With the advancements taking place it is equally important to focus on the infrastructural developments. Various problems are being faced by students related to infrastructural aspects and need to be solved for the better involvement and growth of the students. These problems can lower the academic development and thus creates an atmosphere of stress. The absence of a good functioning infrastructure and facilities causes significant loss of instructional development and time, and thus hampers the educational outcomes. If changes are brought about in some situations like washroom conditions, classroom facilities, playground spaces, etc. will help to make the growth of students to be effective and better. Thus, solutions are needed to be found to overcome these problems and thus smoothening the process of education for students.***

***Keywords: Primary school students, infrastructure role, psychological effects, problems, solutions, current situations.***

## I. INTRODUCTION

‘’School is the second home’’ and rightly so. School is the second place where children spend most of the time after home. School is not a place where children are expected to be in a firm hand of a responsibility to guide them, but also to be in a productive and secure environment. In this school infrastructure plays an important role for creating such kind of environment.

It is an important thing for any school to create an environment that not only encourages learning, but also focuses on the social, physical, mental wellbeing of children. Researchers and psychologists have constantly conducted studies to find out is their relation between a student’s performance and environment factors.

A good school infrastructure makes it a good place for children to learn. It creates interest and gives children motivation and enthusiasm to come to school, this in turn will increase the attendance of students and their interests and hence increase their productivity. Thus it is important for a school to provide a good infrastructure for improving students interests and performance and along improve the school system. A good infrastructure is important but at the same time , it should also have emphasis on a child friendly ambience , and activity and value based learning. Due to many schools not having a proper infrastructure , there is evidence that the schools having a good infrastructure have an average 10 percent less absentee than teachers in schools with deficient infrastructure.

## II. CURRENT SITUATIONS

Here is an overall idea about the funds being provided for the infrastructure activities and the use of them by school authorities. In a recent report it has been found a significant shortfall in budgetary funding and utilisation in education. The results of this are critical infrastructure gaps, according to a parliamentary panel on education. The Education department had proposed to allocate an amount of ₹82570 crores but only ₹59845 crores were allocated. In all over the country, only 56% of schools have electricity, with Madhya Pradesh and Manipur having the lowest rate. Less than 57% schools have playgrounds according to a survey. 40% schools do not have a boundary wall for which 2613proects were sanctioned in 2019-2020 but only three of them have been completed in the nine months of the financial year. At secondary schools, not more than 5% of the facilities aimed for disable students like ramps and special toilets had been completed.

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## III. PROBLEMS

Education infrastructure includes suitable spaces to learn. This is one of the most basic elements necessary to ensure access to education. School classrooms are the most common place in which structured learning takes place with groups of children.Poor building conditions such as leaking toilets, broken furniture, classrooms that are too hot or cold, mouldy walls and plaster falling off ceilings make students feel negatively about their school's norms and expectations, a new study has found.This negative perception of the school's social climate contributes to high absenteeism. In turn, that contributes to low test scores and poor academic achievement, researchers said. Facilities may be inadequate in many ways, some of the key components which should be featured in an ideal checklist while assessing any school infrastructure can be:-

Lacking sanitation facilities and lacking clean and hygienic drinking water. The health implications of inadequate toilets and sanitation is a very serious issue. Sometimes girls are pushed out of the schools because of improper and inadequate sanitation facilities. Older primary-age girls tend to miss a significant amount of school or they are unlikely to continue going to the school after they begin menstruation where there are poor sanitation facilities.

Classrooms are small and are not spacious and well-ventilated. In smaller classrooms, students are engaged in talking with each other. If classrooms are not spacious and well -ventilated children cannot concentrate on their studies and feel uncomfortable especially in humid weather.

Lack of sitting facilities in schools. It has been seen that in some school children sit on the floor. Which distracts them from their studies and makes them uncomfortable and also can cause muscle strain. In some cases, even though desks and benches are provided, they are not up to the mark and thus students face problems. Also, the rods of some benches are rusted which may hurt children and causes of such could be fatal. Inappropriate adjustments are done to provide benches, rather than actually constructing proper benches which causes harm to students.

Mouldy walls and plaster falling off the ceiling from walls. In case of natural calamities there are chances that walls may get collapsed and injury can occur.

Small playgrounds in schools create restrictions for the children to play. Because of small playgrounds the schools cannot organise programmes and assemblies for the children of their schools because of the unavailability of space.

Lack of electricity facilities. In case of power failure children may feel suffocated and irritated which results in lack of concentration.

Improper laboratory facilities in schools. As in laboratory emergency exits are not provided and proper windows for ventilation. In case of emergency no provision is made and also can cause accidents. Also, sometimes the equipment is not as required and thus some of the students are unable to carry out the practicals.

Library is provided at a place where there is a lot of disturbance and not adequate sitting space.

## IV. SOLUTIONS

As the child spends his/her most time in school it is necessary that School buildings should be in proper conditions with availability of every basic requirement. It is important to ensure that they are not damaged. As buildings are regarded to be of most significance in attracting the students who are in pre-primary or primary. To maintain the school buildings, it is important for the students to ensure they are well-repaired and painted. When construction of school buildings takes place, it is important to take into consideration that they are able to bear the occurrence of any natural disaster. Additionally, they should have well-constructed boundary walls. It has been researched upon that, normally students open nursery schools within their own homes. Hence, when set up of schools takes place, it is important to ensure that school buildings are constructed in an efficacious manner. It is also important when the school buildings are under construction the major concern must be towards proper ventilation, spacious rooms and playgrounds. Certain things that need to be taken in account, when constructing school buildings are, wall and roof cladding fixings to secondary and primary structure, glazing and fixings of glazing and windows, fixing of ceilings and services to structural supports and restraint of parapet walls.

Water is regarded as an essential requirement of the students. Normally, it has been seen that staff members as well as students carry their own drinking water. But, it is essential to make facilities of clean drinking water within schools. The students normally spend about six to seven hours within schools. Apart from classes, they even get engaged in extracurricular activities. Therefore, when they have access to clean drinking water, they feel comfortable. Summer seasons are hot so everyone prefers drinking large amounts of water. It has been seen that due to lack of clean drinking water, the students experience unfavourable effects.

In schools, it is essential to set up separate washrooms for boys and girls. The construction of washrooms have been given importance to both urban and rural sections.

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It has been seen that many government and private schools at the primary, secondary are providing washrooms for girls. However, the facilities of washrooms are better in private schools, as compared to the government schools. It is important to ensure that there are proper facilities available as clean water, soaps. It is seen that many times parents don't wish to enrol their girl child because of poor quality or no washrooms available.

The important aspects within the classrooms are, making proper facilities available, proper ventilation and proper technology. It has been seen that in some schools, students sit on the floor so it is important to provide proper chairs and desks for the students. When there will be proper ventilation, then students will be able to concentrate studying properly. The use of technologies would lead to achieving academic aim. The backbone school infrastructure is the classroom. There should be adequate classrooms and it should look pleasant with good painting and decorations. The front wall should have an appropriate blackboard. The wall should have built in cupboards for keeping books and others important things.

In schools, the availability of playgrounds are considered major. playgrounds usually vary in size. In pre-primary, mostly the playground can be small, whereas, in primary schools it must be big. In playgrounds, the students go through a number of different physical and fun activities, which motivates them to learn more. The practice of physical activities normally takes place in playgrounds. Apart from practice, playground facilities are also meant for fun and enjoyment activities. Additionally, in schools, when there are competitions, sports day or celebration, playground facilities are regarded to be important. Playground must be spacious with three to four outdoor sports facilities like courts for basketball, football, badminton etc. Different pitches must be provided for high jump, long jump with adequate dimensions. It will help students to improve knowledge about physical sports and will help them to get physically and mentally strong.

The use of technology is significant in acquiring an efficient understanding. In pre-primary When the teachers as well as students make use of technology in implementation of tasks and activities. Within schools, it is essential to set up a computer centre for making the student learn about new upcoming technology.

Library plays an important part in the learning process of the school as it is a counterpart of the school's infrastructure. It should be located in a place where it is quiet and calm with a soothing ambience for the students to concentrate better. The library must be spacious so that many students can acquire and seat separately and can read and concentrate properly.

The design of space for laboratories must have proper use of space and furnishings, combining features of traditional laboratories and classrooms. In budgeting for laboratories, schools must consider the ongoing costs of equipment and supplies as well as the costs of building facilities. Adequate facilities, equipment, and supplies for laboratory experiences are inequitably distributed. Maintaining student safety during laboratory experiences is a critical concern. So mainly the chemistry laboratory must be spacious and must have an emergency exit with proper windows so that if there is any issue due to chemicals everyone can be safely out. Proper space must be made for performing physics practical which are with big setup.

Electricity facility is one of the important infrastructural facilities in the school. Because of availability of electricity, the students feel comfortable and can carry out their tasks and activities in a manageable manner. Electricity facilities make one able to operate technology. Research has indicated that in schools, due to no electricity students are not able to concentrate on their studies and feel discouraged. In present, there have been formulations of measures to ensure that there are facilities of electricity all day either normally and if there is power cut then by generators and inverters.

## V. CONCLUSION

The availability of infrastructural facilities enables the students to create a great and fruitful environment. The characteristics of infrastructure emphasis upon how they have proven to be effectual and advantageous to the students.The different types of infrastructural facilities are, school buildings, facilities of clean drinking water, facilities of washrooms, great classrooms, playground facilities, technology, library facilities, laboratory facilities and electricity facility. The students are required to spend six to seven hours within schools. Therefore, when there is availability of these facilities, they feel pleasurable in school. When development of infrastructural facilities takes place, focus must be on the school improving classroom conditions. Within the classrooms, the atmosphere should be created in such a manner that learning among students can take place easily. Whereas, it is important to pay attention to all infrastructural facilities like proper washroom must be provided, school must be properly ventilated etc. The major advantage of infrastructural facilities is students are able to effectively concentrate upon learning and students are able to achieve their educational goal. It is essential for the school authorities, especially in the rural section to pay adequate attention towards the development of infrastructural facilities in schools.

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## REFERENCES

[1] Kapur, R. (2019). Infrastructure Development in Schools. ResearchGate. https://www.researchgate.net/publication/334029594_Infrastructure_Development_in_Schools
[2] The Hindu. (2020). The state of educational infrastructure in India. https://www.thehindu.com/news/national/the-state-of-educational-infrastructure-in-india/article31038543.ece
[3] Infrastructure. (n.d.). Educate a Child. https://educateachild.org/explore/barriers-to-education/infrastructure
[4] School playground: Its impact on children's learning and development. (n.d.). ResearchGate. https://www.researchgate.net/publication/268979180_School_playground_Its_impact_on_children's_learning_and_development
[5] Nalanda School Org. (2018). The Perfect School Campus: The Importance of Having a Good School Infrastructure. Nalanda International School. https://www.nalandaschool.org/the-importance-of-having-a-good-school-infrastructure

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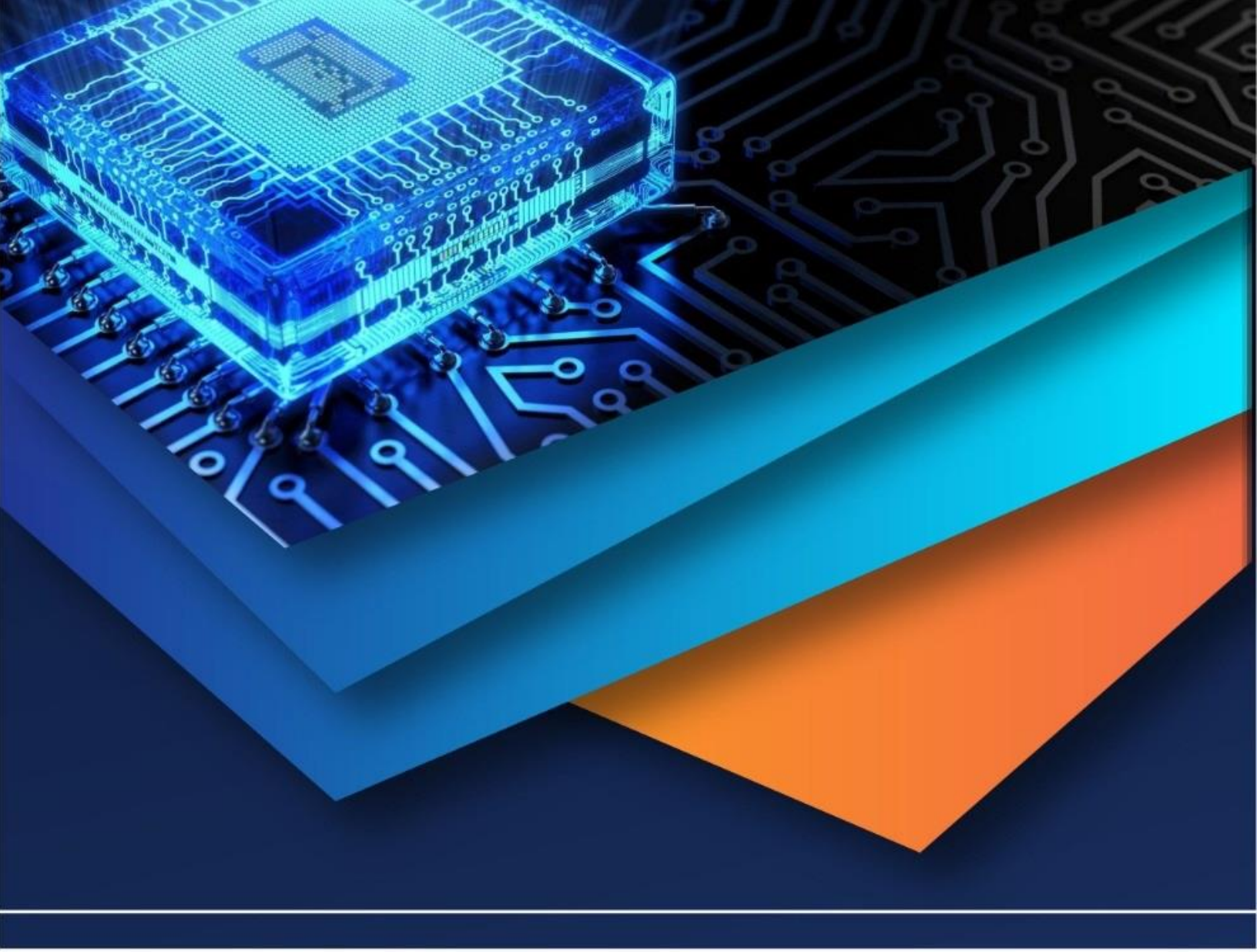

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