

A Study Of Infrastructural Facilities In Higher Secondary Schools Of Jammu District

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Abstract

Around the world, governments and society work to enhance their educational systems and make sure that all children and youth have the chance to attend school and gain information and skills necessary to lead healthy and fruitful lives. Curricula, educators, and educational infrastructure are crucial components of the educational system that contribute to raising educational standards. Inequitable access to educational resources increases teacher and student absence, dropout rates, as well as resentment among students. Therefore, schools have a duty to establish a setting that promotes learning while also paying close attention to a child's physical and mental health. Schools must have necessary infrastructural facilities like furniture, furnishings, and equipment to present curriculum in an efficient manner. In the present study a study of infrastructural facilities in higher secondary schools of Jammu district was done. 100 government higher secondary schools from Jammu district were selected purposively. Data was collected with the help of a checklist. Analysis of the data was done by calculating percentages. From the results it was seen that all higher secondary schools in Jammu district had tables, chairs, blackboards, chalks and fans. Majority of schools had dusters, teachers table, dustbins, cupboards and regular supply of electricity. However, none of the schools had smart boards or power backups and very few had display boards. All higher secondary schools had principal's office, staff rooms, science laboratories, administrative offices, toilets for boys, girls and staff. Maximum schools had a library. Only few schools had computer laboratory, medical rooms, arts and craft room, sports room, music rooms and counseling rooms. None of the school had language laboratory, examination hall or hostel facilities. The results also show that maximum libraries in the higher secondary schools had text books but very few libraries in the school had reference books, newspapers and story books. None of the schools had encyclopedia or periodicals. Maximum higher secondary schools did not have canteen, sports kit, fire extinguisher or first aid kit. All the schools had drinking water facility. None of the schools had a stationary shop, transport facility or disability friendly infrastructure. It is recommended that for overall improvement of teaching learning process all facilities should be made available to the students.

Key Words: Infrastructural facilities, Access, Educational resources, Improvement, Teaching learning

I. Introduction

School planners have long struggled with the problem of how to build schools in various locations that will best serve the educational process. It's not impossible, but it requires a thorough comprehension of current state of affairs, expectations of all parties, and best course of action to meet those expectations. From the standpoint of facilities, it is always essential to have a few common quantitative and qualitative denominators or features that will allow planners to identify any anomalies in the existing school or system and based on these anomalies provide solutions that fulfil both short-term and long-term objectives. Some of the most important aspects include the school and class sizes. Schools must have necessary furniture, furnishings, and equipment to present the curriculum in an efficient manner. Inequitable access to educational resources increases teacher and student absence, dropout rates, as well as resentment among students. Ensuring that schools have the right infrastructure might greatly enhance equity and increase enrollment.

The National Education Policy (NPE), 1986 had stated that a school's physical environment can have a demotivating effect on both students and other staff members if it lacks proper infrastructure facilities and amenities. The Right to Education Act, 2009 also mandates that every school must have a suitable physical environment and amenities. These include facilities like restrooms, drinkable water sources, playgrounds, suitable environmental conditions, wholesome midday meals, suitable boundary walls, and so forth.

The broad concept of infrastructure is made up of many different parts. These include items like sports fields, reading rooms, laboratories, computer centres, technology, equipment, and other facilities. Members of educational institutions must make financial investments in order to enhance the infrastructure. For enabling teachers to carry out their job obligations, infrastructure improvements will be required in educational institutions to allow teachers and administrators to do their jobs properly. The administrators in educational institutions must see to it that the infrastructure is improved on a regular basis. Given the changes that are taking place around the world, introduction of modern infrastructural facilities is crucial to support growth in educational institutions.

II. Literature review

Mylliemngap (2011) in her study found that majority (i.e. 90%) of the schools of Shillong were found to have their own buildings. Most of the schools (60% of them) in Shillong had playgrounds. Majority of the school campus were properly fenced indicating that their campuses were safe. 90% of the schools had spacious classroom. 80% of the schools had a common room for teachers. 80% of the staff rooms for teachers were spacious and properly ventilated. 60% of them had adequate furniture's and shelves. 100% of the schools had well equipped libraries with facilities. Only 57% of the schools had a qualified librarian. Regarding issuing of books and visibility with seating facility, the findings showed that 86% of the schools had this facility. 90% of the schools in Shillong had computer education in their schools with provisions of having separate classroom. 70% of the schools provided opportunities for computer access to students. Regarding running water, it was found in the study that 70% of the schools provided running water facilities inside the toilets. All the schools provided clean drinking water facility and the main sources of water supply were through municipal taps. 60% of the schools in Shillong had canteen facilities, proper seating arrangements, wash basin and reasonable rates of eatables. Hostel facility was not available in 90% of the schools in Shillong. Thus, the students coming from outside Shillong town faced residential problems and had to stay in rented accommodations. It was also found that none of the schools had bus facility, causing transportation difficulties for students and staff. 70% of the schools' teachers used teaching aids in their class. 80% of them preferred charts as the most convenient and affordable teaching aids. 70% of the schools had laboratories thus providing opportunities for an all-around development of the students.

Ayeni and Adelabu (2012) in their study reported that the classrooms in most of the schools were inadequate in terms of decency, space, ventilation and insulation from heat; the incinerators and urinal were not conveniently placed, and the school plant was poorly maintained; these combined deficiencies constituted a major gap in the quality of learning environment. Hence, the school infrastructure management and planning committee must work to improve the educational facility in the school.

Bhunia et al. (2012) in his study on infrastructure availability and stratification at micro level in the education system, its impact on educational process and to a lesser extent outlining block to educational disparities stated that Government of India initiated a flagship system Sarva Shiksha Abhiyan (SSA) particularly meant for increasing infrastructure up to elementary education for development and increasing literacy rate. They recommended that the availability of infrastructure elements such as availability of toilets, electricity, library, computers, type and condition of classroom was of great significance for improving the learning environment.

According to Oku (2012) the classroom is an important place in the school, where the students are brought together, and given the opportunity of achieving the purpose of education and also learn to tolerate themselves. It is a place where teachers organize their work, carry out educational plans as well as a place where research findings are tested or tried out.

Oyededeji (2012) in his research described the total numbers of infrastructural facilities provided in schools as potent indicator for measuring the quality and standard of education given by any level of educational system and also found that poor and inadequate infrastructural facilities have negative significant impact on any educational programme.

Nwankwo (2013) in his study stated that infrastructure is the arrangement of both human and material resources including programmes available and using them systematically and carefully for the achievement of objectives in teaching and learning.

Ozuzu (2013) defined classroom as a place where pupils or students gather for teaching and learning purposes, it holds them together and gives them ample opportunity for group socialization through interacting with one another. From Global point of view, classroom is a place where teaching, learning, acquisition of skills, as well as socialization is imbibed. In other words, the expectation and objectives of formal education are normally accomplished in the classroom.

Dare (2014) in his study found that a well designed and functional school buildings with a wide array of teaching aids would therefore, provide effective delivery of the school's curriculum and positively enhance students' academic performance.

Alberto & Troutman (2014) in their study reported that in secondary education system in Rivers State, infrastructural facilities include administrative and classroom blocks and libraries, residential facilities (dormitory, staff quarters, dining and assembly halls, security post, store, kitchens, toilet facilities, sick-bay, water and power supplies), and recreational facilities (football, handball, volley ball, hockey field and other field events, lawn/table tennis, net ball, racket ball and basket ball courts). These facilities are designed to support the process of teaching and learning in schools. Others are: agricultural facilities; (agricultural equipment, farms for plants and animal production), Science laboratory facilities (Physics, Chemistry, Biology, Basic Technology, Computer), etc. In another development, classroom management is conceived as the ability of the teachers to manage space, time, resources, and students' behaviours to bring a climate that encourages learning.

As all the studies have highlighted the importance of infrastructure for smooth conduct of teaching learning process, the investigator decided to assess the availability of infrastructure in higher secondary schools of Jammu district.

III. Significance of the study

Correct environment is necessary for delivering high-quality education. Instead of using only bricks and stones, a school structure should be constructed with thought and compassion. Schools, which are like a child's second home, have several functions in a child's life. Schools do it all, from building students' self-confidence to teaching them the value of teamwork and socialization. Children spend maximum time in school when they are away from home. Schools have a duty to establish a setting

that promotes learning while also paying close attention to the child's physical and mental health. Students should have access to a learning environment where they can pick up knowledge and skills they need, to develop into responsible adults.

Parents want to enroll their children in schools which have better infrastructure. For schools to be parents' top choices, they must offer high-quality instruction and adequate facilities so that kids can engage in both extracurricular activities and a comprehensive academic development. Realizing the importance of infrastructure in an institution, the investigator decided to conduct research on infrastructural facilities in government schools of Jammu district. The results of the study will be helpful to educational planners and administrators to improve the infrastructure where ever required.

IV. Objectives of the study

1. To assess the infrastructure facilities available in higher secondary schools of Jammu district.
2. To give suggestions on the basis of findings of the study.

V. Delimitations of the study

1. The study will be delimited to 100 higher secondary schools of Jammu district.
2. Only government higher secondary schools will be covered in the study.

VI. Methodology

Selection of schools has been made by purposive sampling technique. Data was collected with the help of checklist. Analysis of the data was done by calculating percentages.

VII. Analysis and interpretation of data

Table 1: Showing facilities available in the classrooms of higher secondary schools in Jammu district.

S.No.	Class room facilities	Availability	
		Yes	No
1.	Table	100%	-
2.	Chairs	100%	-
3.	Black board	100%	-
4.	Chalks	100%	-
5.	Duster	80%	20%
6.	Fans	100%	-
7.	Teachers table	80%	20%
8.	Smart board	-	100%
9.	Display board	20%	80%
10.	Dustbin	75%	25%
11.	Cupboard	95%	5%
12.	Wall clock	10%	90%
13.	Regular supply of electricity	60%	40%
14.	Power back up	-	100%

From table no.1 it can be seen that all the classrooms of higher secondary schools in Jammu district had tables and chairs for students but most of them were in a bad condition. The reason maybe that the students were scribbling on them and handling them roughly. All the schools had blackboard but most of them were cracked or broken. Some of the blackboards were unfit for writing. All the schools had chalks. 80% of schools had duster but in many dusters the sponge was worn out. All the schools had fans but were dirty as they were not regularly cleaned. 80% schools had table for teachers. None of the schools had smart boards. Only 20% of schools had display boards. The charts were displayed on the walls of the class. 75% schools had dustbin. 95% schools had cupboard in the classrooms for teachers. Where there were no cupboards, shelves were made in the wall. Only 10% classrooms had wall clock. 60% schools had regular supply of electricity. None of the schools had power backup.

Table no 2: Showing types of rooms available in the higher secondary schools in Jammu district.

S No.	Type of room	Availability	
		Yes	No
1.	Principal office	100%	-
2.	Staff room	100%	-
3.	Multipurpose hall	-	100%
4.	Science Laboratory	100%	-
5.	Library	90%	10%
6.	Computer laboratory	10%	90%
7.	Administrative office	100%	-
8.	Language laboratory	-	100%
9.	Maths laboratory	-	100%
10.	Medical room	40%	60%
11.	Boys toilet	100%	-
12.	Girls toilet	100%	-
13.	Staff toilet	100%	-
14.	Examination halls	-	100%
15.	Arts and craft room	10%	90%
16.	Sports room	10%	90%
17.	Music room	10%	90%
18.	Counselling cell	40%	60%
19.	Hostel	-	100%

From table no. 2 it can be seen that all the higher secondary schools in Jammu district had principals' office and staff room. None of the school had a multipurpose hall. All the schools had science laboratory but most of them did not have proper equipments. Few specimens, charts and 3D models were displayed. Maps and globes were also displayed in science laboratories. 90% schools had a library. Only 10% schools had a computer laboratory. In some schools only one computer was available in the computer lab. All schools had an administrative office. None of the school had language or math's laboratory. All the schools had separate toilets for boys, girls and the staff. None of the schools had a separate examination hall. The exams were conducted by making arrangements in the classrooms. Only 10% schools had separate arts and craft room, sports room or music room. Only 40% had counseling room but there were no counselors. The teachers were expected to council the students whenever required. None of the schools had hostel facility.

Table no 3: Showing library facilities available in the higher secondary schools in Jammu district.

S.No.	Library facilities	Availability	
		Yes	No
1.	Text books	90%	10%
2.	Reference books	30%	70%
3.	Newspapers	10%	90%
4.	Encyclopedia	-	100%
5.	Periodicals	-	100%
6.	Story books	40%	60%

From table no. 3 it can be seen that 90% libraries in higher secondary schools in Jammu district had textbooks. Only 30% schools had reference books in their libraries. Also, only 10% schools had newspapers in the libraries. None of the school libraries had encyclopedia or periodicals. Only 40% schools had story books in their libraries.

Table no 4: Showing other facilities available in the higher secondary schools in Jammu district.

S.No.	Other facilities	Availability	
		Yes	No
1.	Canteen	05%	95%
2.	Stationary shop	-	100%
3.	Playground	65%	35%
4.	Sports kit	15%	85%
5.	Drinking water	100%	-
6.	Fire extinguisher	30%	70%
7.	First aid kit	40%	60%
8.	Transport facility	-	100%
9.	Disability friendly infrastructure	-	100%

From table no 4. It can be seen that only 5% of higher secondary schools in Jammu district had a canteen. None of the schools had a stationary shop. 65% schools had playgrounds. Only 15% schools had sports kit. All the schools had drinking water facility. Fire extinguishers were available in only 30% schools. Only 40% schools had first aid kit which mostly comprised of Dettol, cotton and bandages. None of the schools had transport facility for the students and they were not disability friendly.

VIII. Conclusions and discussion of results

From the results it can be seen that all higher secondary schools in Jammu district had tables, chairs, blackboards, chalks and fans. Majority of schools had dusters, teachers table, dustbins, cupboards and regular supply of electricity. However, none of the schools had smart boards or power backups and very few had display boards.

Also, from the results it can be seen that all higher secondary schools in Jammu district had principals' office, staff rooms, science laboratories, administrative offices, toilets for boys, girls and staff. Maximum schools had a library. Only few schools had computer laboratory, medical room, arts and craft room, sports room, music room and counseling room. None of the schools had language laboratory, examination hall or hostel facilities. Similar results were reported by Myllemngap (2011) who reported that in maximum schools, hostel facility was not available because of which students coming from outside Shillong town faced residential problems and had to stay in rented accommodations.

The results also show that maximum libraries in the higher secondary schools in Jammu district had text books but very few libraries in the school had reference books, newspapers and story books. None of the schools had encyclopedia or periodicals. Thus, the libraries were not properly equipped. Contrary results were found by Myllemngap (2011) who reported that 100% of the schools in Shillong had well equipped libraries.

From the results it is also seen that maximum higher secondary schools did not have canteen, sports kit, fire extinguisher or first aid kit. Contrary results were found by Myllemngap (2011) who reported that maximum schools in Shillong had canteen facilities with proper seating arrangements, wash basin and reasonable rates of eatables. All the schools had drinking water facility. Similar result was reported by Myllemngap (2011) wherein all schools in Shillong provided clean drinking water facility. Results also show that maximum schools had a playground, none of the schools had a stationary shop, transport facility or disability friendly infrastructure.

IX. Educational implications and suggestions

From the results it can be seen that none of the higher secondary schools in Jammu district had smart boards and very few had display boards. Smart boards in classrooms allow teacher and students to access a wide range of educational resources that are available online, from videos to texts to animations and applications. This allows the teacher to use both audio and visuals to explain lessons effectively in class. Classroom display boards are a great way to get students engaged, excited and working together, helping to maximize learning and developing personal skills. Additionally, display boards are a great learning aid for children who are visual learners, as it helps them to visualize exactly what is being told to them. Thus, it should be ensured that schools should have smart boards and display boards.

Results also show that only few schools had computer laboratory, medical rooms, arts and craft room, sports room, music room and counseling room. A computer laboratory is important in every school as students can invest their free time in learning programming and automation and improving basic computer skills. That will help them later to define their career goals, improve entrepreneurship skills, and offer wider variety of job opportunities. For skills development, students need to practice. And to do that effectively they need a computer lab. Learning arts and crafts does not just foster the creative development of a child, but also assists in advancing and refining his or her core skills, which in fact goes towards boosting academic achievement as well. Thus, arts and craft room is very important in all schools. Sports teaches everyone self-control and to be in discipline. Hence, it is important to have sports room with sports kits in every school. Music classes at schools can help students reduce stress and depression, thus preventing physical health issues. Music classes in schools help students relax by synchronizing with the beats and this way they are able to concentrate on subjects. Thus, every school should have a music room.

The primary motive behind counseling at school level is to address the emotional, social and behavioral needs of the students. Thus, every school must have counseling room with trained counselors.

Results also show that libraries in the school are not well equipped. Libraries are a crucial source of information for children in schools. It creates the essential habit of reading in students. Each school must have libraries.

From the results it is also seen that schools do not have fire extinguishers. Every school must have a fire extinguisher or at the very least sand banks. These can be used to contain the fire before it spreads. Good transportation facility is important so that students from remote areas are not deprived of attending schools. Further safety of students especially girls should be a major concern for any school. It is suggested that schools should provide transportation facilities to students. Schools should also take action to ensure appropriate access of facilities to disabled children to encourage inclusivity. As government, administrators, teachers, other staff members, parents and students play an important role in functioning of a school, their opinion can be taken in future studies.

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