AVAILABILITY OF ELECTRICITY IN THE ELEMENTARY SCHOOLS - A CASE STUDY OF JORHAT DISTRICT OF ASSAM, INDIA

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Abstract:
Electricity is one of the most important inventions of Man. The availability of electricity varies from region to region. The regions which lack electricity are facing lots of problems. One of the most important outcomes that have been affected by electricity is Education. However, among all Levels of Education, it is the Elementary Education whose access to electricity is in worst condition. According to HRD Minister of India - Mr. R.P Nishank, “only 63.14 percent Elementary Schools of India have the Access to Electricity”. Where he said Assam has the least number of schools with electricity (24.28%) followed by Meghalaya (26.34%). On the other hand, Dadra & Nagar Haveli and Lakshadweep has cent percent schools with electricity. This implies that the availability of electricity in the Elementary schools of India varies from region to region. Jorhat district of Assam which is the locale of this study is also not different in this regard. There are 05 Education Blocks in Jorhat district and there exist huge variation in terms of availability of electricity. Therefore, this paper is an attempt to highlight the Regional Disparities in availability of electricity among the Elementary Schools of Jorhat.
Keywords: Elementary Education, Electricity, Regional Disparity.

1. Introduction:
Elementary Education is the First Level of Education which includes the smallest and most sensitive generations of a Nation. The availability of infrastructure in the schools have serious impact on them may it be in terms of academic outcomes or their presence in the schools. We all are familiar to a fact that there exist huge variations in terms of infrastructural availability among the elementary schools.

The Basic Infrastructure that a School requires are – Good building structure, Sufficient Classrooms, Availability of Teaching Learning Materials, Availability of Toilets, Availability of Drinking Water Facility, Availability of Electricity, Boundary Wall, Play Ground, Ramps for Special
Childs and Kitchen shed etc. Availability of this entire infrastructure makes a School perfect place for education. It is found that all the Elementary Schools have the aforementioned infrastructures up to some extent except that of electricity. The availability of electricity in Elementary Schools of India is limited to some places only. As mentioned earlier, According to HRD Minister of India - Mr. R.P Nishank, “only 63.14 percent Elementary Schools of India have the Access to Electricity”. And Assam has only 23.28 percent schools with electricity where on the other Dadra and Nagar Haveli and Lakshadweep have 100 percent schools with the facility of electricity. This implies there exist huge inequalities among the states of India.

Electricity is among the basic infrastructure which has many serious impacts on the Elementary Level Students. Many studies have proved that the school without electricity has poor results of students and have increased Dropout Rates than in comparison to those having Electricity. Keeping in mind the aforementioned facts, this paper is an attempt to highlight the impact of unavailability of Electricity on Elementary Education and the inequalities that exist among the Education Blocks of Jorhat district of Assam, India.

2. Study Area:

Jorhat district of Assam has been selected as the study area for this research work. There are five Education Blocks in the district. The following map shows the study area.

3. Methodology:

3.1 Research design: This research work is totally based on the data collected personally. Thus, the Research Method used in this study is the Descriptive Research method which is a Fact Finding Research Method with adequate interpretation.

3.2 Sampling: Stratified Random Sampling Technique is used in this study to draw out the samples. As samples, 30 Elementary Schools from all the Education Blocks has been randomly selected to carry out this research work.
3.3 **Data:** Both Primary data and Secondary data is used in this study. Data related to the present status of electricity in the Elementary Schools among the Education Blocks are collected personally from the sample schools. And to know about the development status of electricity in the Elementary Schools, Secondary data from UDISE-Reports were used.

4. **Results and Discussion:**

The outcomes of this Research Work are as below:

4.1 **Present Status:**

![Diagram 2: Present status of Electricity in the Elementary Schools]

From the above graph, it is clear that Jorhat Education Block with 43.33 percent has the highest percentage of Elementary Schools with Electricity. Then, Titabar Block has 33.33 percent Elementary Schools with electricity. Similarly, North West Block has 26.66 percent, East Jorhat Block has 23.33 percent and Central Jorhat has 23.33 percent Elementary Schools with electricity.

4.2 **Trend:**

While talking about the development trend of electricity, it is of foremost important to mention about S.S.A- Sarva Siksha Abhiyan, who played a significant role since its arrival in the state. Though the changes were not enough, but whatever changes have been taken that is due to the implementation of S.S.A. S.S.A was implemented in the year 2002 in Assam and therefore changes were observed from 2002.
From the above graph, it is easily observable that North West Jorhat block has only 10 percent Elementary Schools with electricity before 2002. It remained the same for the year 2002. Then the number of Elementary Schools with electricity increased to 13.33 percent in 2010 and to 26.66 percent in 2018. After that East Jorhat Block has only 6.66 percent Elementary Schools with electricity which has increased to 10 percent in 2002, 13.33 percent in 2010 and to 23.33 percent in 2018. After that Jorhat Block has 16.66 percent Elementary Schools with electricity before 2002 which has increased to 20 percent in 2002, 36.66 percent in 2010 and 43.33 percent in 2018. Then Titabar Block has 10 percent Elementary Schools with electricity before 2002 which has increased to 13.33 percent in 2002, 30 percent in 2010 and 33.33 percent in 2018. Central Jorhat Block has only 6.66 percent Elementary Schools with electricity which remained the same for the year 2002, increased to 10 percent in 2010 and to 23.33 percent in 2018.

4.3 Disparity among Education Blocks:

In terms of availability of electricity in the Elementary Schools, there exit huge variations among the Education Blocks of Jorhat district of Assam.

Although the availability of electricity in the Elementary Schools is not sufficient all over but while comparing at block level, Jorhat Block has the highest percent of schools with electricity of about 43.33%. Moreover, Titabar Block has 33.33 %, North West Jorhat Block has 26.33% and both East Jorhat Block and Central Jorhat Block have 23.33% elementary schools with electricity. The following map will make us more clearly about the disparities that exist among the Education Blocks of the district.

Diagram 4 - Disparity Map
4.4 Impact:

Absence of electricity has many impacts upon both the students as well as the teachers. Some of the impacts found during the survey are as below:

4. 4.1 From the survey it is found most of the Elementary Schools have Classrooms under tree shed where the rooms are unable to receive ample amount of sunlight which makes the classroom dark. In that situation, the first and foremost disadvantage of not having electricity is that it can harm Student’s Eye power by regular studying in dark rooms where during day time sunlight reaches in small quantity.

4.4.2 Secondly, today the world is moving rapidly towards Digitalization. Classes in the schools were taken more on-screen using Projectors and Computers rather than the blackboards and chalks. Absence of electricity deters the facility of taking on-screen classes.

4.4.3 Use of Computer is more common nowadays. Computer is an electronic device which with internet connection connects the whole world and help in updating the learners by recent data. A school without electricity cuts it link from rest of the World.

4.4.4 Absence of electricity in Elementary Schools discourages the Students in learning and Teachers from working in schools. During summer, Temperature in many places of Jorhat reaches up to 40 degree Celsius. Therefore conducting classes and studying in such hot days are very tough. The teachers along with the small students need some cooling devices by which they can cool down their body. This is not present due to unavailability of Electricity.

4.4.5 From the survey it is found that absence of electricity complicates work for teachers. They have to keep students details or records manually which may lost or damage after few years.

4.5 Causes:

There are numerous factors responsible for unavailability of electricity in the Elementary Schools as well as inequalities among the Education Blocks. Some of them are as below:

4.5.1 Absence of Electronic Learning facilities: From the survey, it is found that the Elementary Schools are not having any E-Learning Platform and all its classes were taken only in daytime with physical teaching learning materials. Therefore the concerned authorities think there is no need of electricity in the Elementary Schools.

4.5.2 Inaccessibility: Many Elementary schools are in very remote areas where the transportation facilities are not available. In such areas the transportation of heavy electric things are impossible by any means. In those areas Elementary schools were deprived of electricity.

4.5.3 Lack of interest: it is often seen that elementary schools were deprived of getting not only electricity but also other infrastructures. On the other hand, when we look into a higher education institute there we see all the infrastructures available. Therefore it can be said that Elementary Level Education has been neglected up to some extent in comparison to other levels of education.
by the concerned authorities.

5. Suggestions:

Following are some of the suggestions from my side:

5.1 Use of Rechargeable batteries for power supply: Rechargeable batteries are the batteries which are used for power supply in houses in the absence of electricity. It can be recharged if its power level gets down. It can be stored in a corner of classrooms and it can light up to many bulbs. Someone may be give the responsibility to check regular it’s charging issues and recharge it whenever its level go down. The batteries are not so weighted so one can easily transport it by using a bicycle. The concerned authorities can provide rechargeable batteries to all Elementary schools as its cost is very high. By this way all the Elementary schools can avail electricity.

5.2 Use of Solar Panels in Elementary Schools: Solar panels convert the sun light into Electricity. They are Eco- Friendly and don’t harm any Human Beings. Moreover, it is renewable by nature and can be used again and again. The cost of solar panels is also lower than the Traditional Energy Sources. Solar panels are light weighted equipments which can be easily transported from one place to another. Therefore, it is a good alternative for electricity generation in the Elementary Schools which can afford by every Schools and Government can also provide it equally among all the Elementary Schools within the district. This is the second and most preferred way to remove the inequalities that exist among the Elementary schools in terms of availability of electricity.

6. Conclusion:

To conclude, it can be said that absence of Electricity in the Elementary Schools has many serious impact on Students pursuing it. The impact may be on Student’s Physical Health, Academic outcomes or their attendance rates. Moreover, absence of Electricity in Elementary Schools has many impacts upon the Teachers also. it should be kept in mind that Elementary Schools are the place where a student spend his lots of time and they are the smallest or youngest generations of Nation. They need lots of care and what they see in these years of Elementary Education will define their future and they will see the whole world from starting from there only. Therefore, there is a need of strong role of Government to overcome the problem of Electricity in the Elementary Schools.

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