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Research Paper

Status of Physical Infrastructure Facilities in Elementary Education Institutions of Uttarakhand

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Abstract

School education is the key to developing character, building social and life skills Schools being the second home, serve a number of purposes in a Child's life. From boosting their confidence to making them learn the importance of team work and socialisation, the schools do it all. Away from home, schools become the place for children to spend their maximum time. A child spends his/her maximum time in school as a student. The school infrastructure then becomes a major factor behind how child sees the world as he/she grows up. Kids are sent to school considering the fact that there is an experienced hand to guide them and also a safe environment promoting growth. We also accept the fact that infrastructure plays a budding hand in creating a favorable environment for a child's growth. Even children won't feel satisfied in a place that lacks physical comfort and other basic facilities. Schools should create an environment that not only assures learning, but also pays special attention to the mental and physical well being of the students.

Studies and researches conducted to figure out the effect of infrastructure suggest that students in schools with poor infrastructure can have lower achievement scores as compared to the ones studying in schools that have better infrastructure and facilities. Researchers and psychologists suggest that environmental factors can increase the academic performance and motivate attendance School buildings, classrooms, playgrounds and libraries are the most important aspect of school infrastructure. Spacious and refurbished buildings and well- ventilated classrooms are a must in schools. Well- equipped laboratories enable the students to perform activities more effectively. Facilities like extra-curricular workshops, libraries, halls, games equipments, assembly area and proper sanitation facilities are some of the infrastructure essentials that every school should provide to its students. Properly planned school infrastructure is a key factor in effective teaching and learning. Keeping in view the role of school infrastructural facilities in the education and all-round development of children the present paper discusses in detail the status of physical infrastructure facilities in the elementary schools of Uttarakhand.

Introduction

School education Plays a key role in developing characters and building social and life skills of students. It is widely known that availability of infrastructure facilities in schools has considerable impact on school environment and it is one of the important indicators for assessing whether the schools are providing a conducive learning environment for children. Researchers and psychologist suggest that environmental factors, infrastructure facilities can increase the academic performance, achievement level and motivates attendance. During last two decades, a major emphasis have been given on improving school environment by different educational programmes like operation Black board, DPEP, SSA, RMSA and so on, as it is a major factor for regular participation of students and finally resulting in improvement in their learning levels.

Education policy in India NPE 1986 has recognized that, 'unattractive school environment, unsatisfactory condition of buildings and insufficiency of instructional material functions as de-motivating factors for children and their parents.' The policy therefore calls for a drive for a substantial improvement of primary schools and provision of support services' (NPE, 1986, 15). According to this policy, primary schools have to be provided with at least two rooms for conducting teaching - learning process. An attempt has been made by the government to provide adequate physical facilities as per the needs of school, recommended by NPE, 1986.

Further RTE Act 2009 has recommended that each school should be equipped with "All-weather building consisting of at least one classroom for every teacher and an office-cum-store-cum- Head Teacher's room, barrier- free access, separate toilets for boys and girls, safe and adequate drinking water facility to all children, a kitchen where mid-day meal is cooked in the school, playground, arrangements for securing the school building by boundary wall or fencing."

The Right to Education Act was implemented in 2010 and the first co-host of students to benefit from its provisions completed eight years of compulsory schooling in 2018. In view of recommendations of RTE act 2009, using DISE and ASER 2018 data, an attempt has been made in this paper to assess the present status of availability of physical facilities in government of physical facilities in government school of Uttarakhand at elementary level

Status of Elementary Schools in Uttarkhand State

Elementary schools exist world wide as the basic foundational institution in the formal educational structure. It usually encompasses grades 1-8. The main objectives of elementary education are-

- To provide knowledge and develop the skills, attitudes and values essential to the children's personal development necessary for living in and contributing to a developing and changing social milieu.
- To provide learning experiences aimed at increasing the children's awareness of and responsiveness to the demands of the society and to prepare them for constructive and affective environment.
- To attain these objectives basic infrastructure facilities are a must in very elementary school. In Uttarakhand state there are about 18,907 elementary schools . As recommended by RTE act 2009 the following infrastructural facilities should be available in each and every school. These are-
 - a) All weather roads for accessibility of schools.
 - b) School building (Class room)
 - c) Boundary wall.
 - d) Water facility for making school environment hygienic and clean.
 - e) Functional drinking water facility
 - f) Girls' Toilet.
 - g) Boys Toilet.
 - h) Playground.
 - i) Electricity connection.
 - j) Library
 - k) Computer
 - l) Computer assisted learning facility etc.

The trends over time in the elementary school infrastructure facilities in the following ten areas is being analysed and discussed.

- 1) Office/Store
- 2) Play round
- 3) Boundary wall

- 4) Kitchen shed for cooking mid day meal
- 5) Drinking Water
- 6) Toilet
- 7) Separate Girls toilet
- 8) Library (books)
- 9) Computer
- 10) Electricity Connection

Infrastructure Facilities -

**Trends over Time in Elementary Schools of Uttarakhand
(With respect to selected Right to Education Indicators)**

1. Office/ Store/ Office cum Store

Table 1.1 % Schools with office/ store office cum store facility.

Year	2010	2014	2016	2018
% of Schools	87.7	88.3	88.1	90.7

Source : ASER (Rural) 2018

Inferences: 90.7% Schools have an office/store/office cum store in 2018 as compared to only 87.7% in 2010.

2. Boundary Wall

Table 2.1 % Schools with a Boundary wall.

Year	2010	2014	2016	2018
% of Schools	66.8	56.6	56.7	58.3

Sources - ASER (Rural) 2018

Inferences: % of schools with boundary wall shows a negative growth from 66.8% in 2010 to more 58.3% in 2018. It may be due to increase in the total number of schools with no boundary wall over these years.

3. Kitchen Shed for Cooking Mid-Day Meal

Table 3.1 Schools with kitchen shed for cooking mid-day meal

Year	2010	2014	2016	2018
% of Schools	96.3	97.3	95.6	98.0

Sources - ASER (Rural) 2018

Inferences: In 2018, a total of 98% elementary schools in Uttarakhand have kitchen sheds for cooking mid day meal, an increase from 96.3% in 2010.

4. Drinking Water

Table 4.1 % Schools with drinking water available

Year	2010	2014	2016	2018
% of Schools	68.3	69.2	72.1	75.6

Sources - ASER (Rural) 2018

Inferences: As compared to only 68.3% schools in 2010 with the facility of drinking water available, in 2018, 75.6% schools have the availability of drinking water.

5. Toilet (Available and Usable)

Table 5.1 : % Schools with toilet facilities available as well as usable.

Year	2010	2014	2016	2018
% of Schools	53.4	69.2	74.9	85.8

Sources - ASER (Rural) 2018

Inferences: With merely 53.4% elementary schools with available and usable toilet in 2010, there is an increase in the toilet facility to 85.8% schools.

6. Separate Girls Toilet (Available and Usable)

Table 6.1: % Schools with separate Girls toilet- available and usable

Year	2010	2014	2016	2018
% of Schools	24.0	53.7	61.3	67.2

Sources - ASER (Rural) 2018

Inferences: The table indicates a significant increase in the % of schools with the facility of separate Girls toilet (available and usable) 67.2% in 2018 from only 24% schools in 2010.

7. Library Books Available

Table 7.1 : % of schools with Library and availability of books.

Year	2010	2014	2016	2018
% of Schools	47.7	85.9	87.0	84.8

Sources - ASER (Rural) 2018

Inferences: The table indicates that there was an increase in % of school with library facilities and availability of books till 2016. But there is a decrease of 3% in 2018 where 84.8% schools have the above facility. This may be because of lack of financial grant for purchase of books.

8. COMPUTERS AVAILABLE

Table 8.1 : % Schools with computers available.

Year	2010	2014	2016	2018
% of Schools	6.7	8.8	9.6	9.8

Sources - ASER (Rural) 2018

Inferences: The table indicates that the computer availability is very low, in only 9.8% elementary schools by 2018. Though there is an increase from 6.7% schools in 2010. This also shows that computer assisted learning (CAL) is not provided in more than 90% elementary schools in Uttarakhand.

Thus it is understandable that a long way has to be covered to make computer aided learning a reality in government schools particularly at the elementary level to deal with the problem of digital divide in India.

9. PLAYGROUND

Table 9.1 : % Schools with a playground (inside the schools premises)

Year	2010	2014	2016	2018
% of Schools	67.0	68.1	63.5	68.8

Sources - ASER (Rural) 2018

Inferences: There is only a very small increase of 108% in the % of schools having a playground from 67% in 2010 to 68.8% schools in 2018. This may be due to less availability of open space in the school premises.

10. ELECTRICITY CONNECTION

Table 10.1 : % Schools having electricity connection

Year	2016	2018
% of Schools	83.6	86.8

Sources - ASER (Rural) 2018

Inferences: It is heartening to see that in 2018 86.8% of elementary schools in Uttarakhand have electricity connection.

Electricity facility is one of the important initiatives that require collective decision of electricity department and education department in the state.

Conclusion

The above data analysis of ASER (Rural) 2018 about the status of infrastructure facilities in elementary schools of Uttarakhand indicate that due to many initiatives taken by government at the national and state level, some improvement has taken place. It has been found that most of the elementary school across the state of Uttarakhand are now accessible by roads and have its own building. Similarly improvement has also been made in terms of availability of drinking water facility, kitchen shed for cooking mid-day meal, toilets, office cum store and library. However the situation is not satisfactory especially boundary wall, separate girls' toilets, playground etc.

Availability of computer facility is lacking in 90% of elementary schools. So it is a matter of great concern that schools without boundary wall, computer and CAL constitute a substances proportion of learners not having access to these facilities and that may have impact on their learning level in this comparing the status of elementary school infrastructure facility in 2018 with the total % of schools with these facilities all over the country, it is heartening to see that Uttarakhand has more % of schools with drinking water, toilet (including separate Girls' toilet), Library books and electricity connection facility. The Playground facilities in Uttarakhand's elementary schools is available in only 68.8% of schools as compared to country's total 82.7% of schools. In the facility of computers available, Uttarakhand is way behind with only 9.8% of schools having this facility as

compared to nation's total 21.3% of elementary schools. There is a dire need to have the computer facilities in elementary schools to give students basic familiarity with the devices and to complement traditional subject areas and create more engaging curricula.

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