

A Study of the Physical Resources of the Primary Schools of Assam and its Influence on the Academic Achievement of the Child : A Case Study

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Abstract

Primary education generally means education imparted to the children of the age group of 6-14 years under the formal education from Class I to VIII. Primary stage is one of the most important stages in educational ladder. It constitutes a very important part of the entire educational structure.

On the other hand physical resources consist of land, school building, class room, laboratory, library, lavatory, assembly hall, museum, school hostel, office room, playground, furniture, apparatus and equipments etc.

Various research studies have revealed that the efficiency of teaching-learning process depends upon the physical resources and material conditions available in the school. In the absence of an improved physical or material condition quality education is unthinkable. The importance of the physical resources of the school cannot be denied as the students spend a good deal of their time in the school premises. This research paper is an attempt to deal with the phenomenon of the influence of the physical resources on the child's education at the primary school level in Nazira town of Sivasagar district.

Key words : Primary education, Physical resources, Academic achievement.

Introduction :

Primary stage is one of the most important stages in educational ladder.

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It constitutes a very important part of the entire educational structure. It is the foundation stone on which lies the entire educational structure and foundation of the super structure of the nation which we intend to build. The education, which the child receives in the stage, provides the foundation of his physical, mental, emotional, intellectual and social development. This research paper is an attempt to deal with how the availability of physical resources at the schools influence the academic achievement of primary school students.

Therefore, it was decided to undertake the research study on-

'A study of the physical resources of the primary schools of Assam and its influence on the academic achievement of the child': A case study.

Objectives of the Study :

The main objective of the study is to find out the influence of physical resources on academic achievement of the child in both the government and private schools. So, keeping in view these facts, the objectives of the present study have been formulated as follows :

1. To find out the availability of physical resources of different primary schools.
2. To find out the influence of physical resources on the academic achievement of the child.
3. To suggest possible remedial measures for improving the academic achievement of the students.

Significance of the Problem :

Primary education is the fundamental need of life and development, in the absence of which life is bound to be degenerated. It is the first formal level of education that comprises from 6 to 14 years. It is the minimum education that may remove the darkness of ignorance and illiteracy of the people. It is the foundation of physical, mental, intellectual and social development of the child. A healthy, beautiful and refreshing environment soothes the eye and pleases the soul. The importance of the physical resources of the school is apparent which we realise that the students spend a good deal of their time in the school premises. Various research studies have revealed that the efficiency of teaching -learning

process depends upon the physical resources and the material conditions available in the school. In the absence of an improved physical or material condition quality education is unthinkable. A school plant or its physical resources may in its practical sense be described as the educational workshop to build up the personality of the child. People are now generally conscious of the need of a better school plant for the education and development of their child. Before giving admission to their children in the school they naturally think of a better school that can give quality education. This general consciousness of people has therefore urged the educators and the educational administrators to make provision for better physical resources

Above all, in the present society problems of primary education have emerged as an important aspect of socio-educational enquiry. In India, study of primary education has received proper impetus only in the last few decades. In fact, if we observe the problem of wastage and stagnation of the primary school children we will find that poor material condition of primary schools has lowered down the quality of education. It is too poor to create necessary educational environment for motivation. That is why it is necessary to study the impact of material resources of the school on the academic achievement of the child.

Field of Study :

The area of the present research study is confined to Nazira town of Sivasagar district in the state of Assam.

Operational Definition of the Term or Key Concept :

1. Primary Education :

Primary education generally means Education imparted to the children of age group of 6-14 years under the formal Education from Class I to VIII. The lower primary starts from I-IV and the upper primary or middle school section starts from Class V and goes up to Class VIII. But for the purpose of the present study class started from I to class IV has been considered as primary level.

2. Physical Resources:

Physical resources of the school are acts as the effective motivating factor for the

teacher and the taught. It consists of land, school building, class room, laboratory, library, lavatory, assembly hall, museum, school hostel, office room, play ground, furniture, apparatus and equipments etc. For the purpose of present study school building, class room, library, separate reading room, science laboratory, drinking water facility, lavatory, urinal, playground, furniture, apparatus and equipments are taken into consideration.

3. Academic Achievement :

Academic achievement is the outcome of education, the extend to which the student, teacher or institution has achieved their goals. Here the term academic achievement is used to mean the marks obtained by the students in various academic performance tests.

Hypothesis :

H1. It is assumed that higher availability of the physical resources leads to the greater enrolment of the students.

H2. It is assumed that private schools are rich in physical resources than that of the government schools.

H3. It is assumed that adequate provision of physical resources help in better performance or better academic achievement of the students.

Variables :

Independent variable : Physical resources.

Dependent variable : Enrolment, Type of Schools and Academic Achievement.

Testing of Hypothesis :

In this study the investigators have formulated three hypotheses which were being tested through chi-square test. Here the chi-square was computed on the actual frequencies and at different degrees of freedom at 0.5 level of significance. In order to test the hypothesis cross tabulation was done and original hypothesis were converted into null form as follows :

1. There is no relationship between the physical resources and the enrolment of schools.

2. There is no relationship between the availability of physical resources of government and private schools.
3. There is no relationship between the physical resources of school and academic achievement of students.

Through the results obtained from the chi-square test, the researchers conclude whether those are being proved or not.

Delimitation of the study :

1. The investigators have delimited the area to Nazira town.
2. The researchers have taken only 12 primary schools as sample (both government and private schools).
3. The present study is confined to the students from class I to class IV of the primary schools of Nazira town.
4. The present study includes 4 parents of the students from each of the selected schools.
5. The present study includes class teacher of class IV of the selected schools.

Universe of the study :

The universe of the present study consists of a finite number of individuals. The present study covers all the primary schools of Nazira town, all the parents of Nazira town whose children are studying in primary school, all the head masters of the primary schools and class teachers of Class IV.

Sampling procedure:

After defining the universe of the study the researchers select a sample of units from the sampling frame. In this investigation the sample of the universe was selected by adopting a systematic procedure.

In this research work we selected 3 groups of respondents by adopting purposive random sampling method. There are at present 12 primary schools (8 Assamese medium schools, 1 Central School, 2 English medium and 1 Shankardeva school) in Nazira town. From every school four parents of children studying in class I to IV i.e. 48 respondents' parents have been selected on the basis of purposive random sampling. Responses have been also taken from all the head

of the institutions and class teachers of class IV.

Tools and Techniques Used for Data Collection :

The present research work is concerned mainly with primary and secondary data from different sources. For gathering data through the primary and secondary sources the following measures has been adopted.

1. One questionnaire has been prepared for the head of the institution.
2. One interview schedule for the class teacher of class IV.
3. One interview schedule for the parents to know parental aspiration.
4. Some official documents such as census report, municipality office record, school official record and enrolment register.
5. Annual examination result and marksheets of the students

Classification, tabulation and analysis of data :

The investigators have tabulated raw data to summarise and display in the form of statistical tables for further analysis. In certain cases diagrammatic representation has done to present a vivid and clear picture of the study.

Major findings of the study :

In order to make effective care of the poor condition of our primary education, it is necessary to analysis some of the causes or factors responsible. They are basically socio economic and have deeply rooted in our rural and backward society. This research work has lot of findings on the physical resources of primary schools of Nazira town. The major findings of the research work have been cited in the following manners :

Table - 1
Available Physical Resources in the Sample School (Yes=1, No=0)

Total	Water Filter	Almirah	P.T. Teacher	Xerox Machine	Type Writer	Musical	Radio	Tape Recorder	A.V.A.	T.V.	Teacher's	Teacher's	Lavatory	Urinals	Drinking	Electricity	Playground	Computer	Sick Room	Indoor Games	Laboratory	Reading Room	Library Room	Auditorium	Headmaster's	Other Room	Separate O.R.	Separate T.R.	Staff room	Separate C.R	Resources
S1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	10
S2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
S3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5
S4	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
S5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
S6	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	6
S7	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	28
S8	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7
S9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
S10	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	28
S11	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0	22
S12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	0	24

Table - 2
Number of Schools having the Selected Resources

Physical Resources	No of Schools	Percentage
Separate Class Room	12	100.00
Staff Room	8	66.67
Separate Teacher Room	5	41.67
Separate Office Room	6	50.00
Other Room	4	33.33
Head Master's Room	6	50.00
Auditorium	3	25.00
Library	5	41.67
Reading Room	4	33.33
Laboratory	3	25.00
Indoor Game Facility	4	33.33
Sick Room	5	41.67
Computer Room	4	33.33
Play Ground	5	41.67
Electricity	8	66.67
Drinking Water	12	100.00
Urinals	11	91.67
Lavatory	5	41.67
Teacher's Urinal	8	66.67
Teacher's Lavatory	5	41.67
T.V.	4	33.33
A.V.A.	6	50.00
Tape Recorder	6	50.00
Radio	6	50.00
Musical Instruments	4	33.33
Type Writer	4	33.33
Xerox Machine	3	25.00
P.T. Teacher	4	33.33
Almirah	10	83.33
Water Filter	5	41.67

Table-1, Table-2 and Table-3 reveal the availability of physical resources and academic achievements in the sample schools of the Nazira Town.

Table - 3
Academic Achievements in Government and Private Schools (Class IV)

Marks	Students of Government School	Students of Private School
Up to 40 %	49	08
40% - 50%	25	10
50% - 60%	17	19
60% - 70%	14	25
70% - 80%	13	12
80% - 90%	10	21
90% - 100%	06	18
Total	134	113

The following three cross tables (i.e. Table 4, 5 and 6) depict chi square testing results which again proves that

1. Higher availability of physical resources leads to the greater enrolment of the students.
2. Private schools are rich in physical resources than that of the Government schools.
3. Higher the availability of physical resources better the academic achievement of the students.

Table-4
Relation between Available Physical Resources and the Enrolment in the Sample School

Schools Relation	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	Total
Resources	10	7	5	5	4	6	28	7	30	28	22	24	176
Enrolment	65	118	125	51	50	41	288	75	188	149	93	50	1293
Total	75	125	130	56	54	47	316	82	218	177	115	74	1469

$$\begin{aligned} \text{The calculated value of } X^2 &= \sum \frac{[(O-E)]^2}{E} \\ &= 56.565 \end{aligned}$$

The tabulated value of chi square for 11 df at 0.5 level of significance = 19.675. In this case, the result obtained from chi-square test shows that the calculated X^2 value is greater than the tabulated value. Hence it rejects the null hypothesis i.e. 'There is no any relationship between the resources and the enrolment of the school' and accepts that 'The higher the availability of physical resources greater the enrolment of the students'.

Table-5**Relation between Physical Resources of Private and Government Schools**

Schools	Resources				Total
Government	10	4	6	28	48
Private	30	28	22	24	104
Total	40	32	28	52	152

The calculated value of $X^2 = \sum \frac{[(O-E)]^2}{E}$

$$= 19.468$$

The tabulated value of chi-square for 3 df at 0.5 level of significance = 7.815. In this case, the result obtained from chi-square test shows that the calculated X^2 value is greater than the tabulated value. Hence it rejects the null hypothesis i.e. 'There is no relationship between the physical resources of government and private schools' and accepts that 'Private schools are rich in physical resources than that of the government schools'.

Table-6**Relation between the Physical Resources and Academic Achievements**

Schools	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	Total
Relation													
Resources	10	7	5	5	4	6	28	7	30	28	22	24	176
Achievement	10	5	10	2	2	4	50	6	28	30	18	5	170
Total	20	12	15	7	6	10	78	13	58	58	40	29	346

$$\begin{aligned} \text{The calculated value of } X^2 &= \sum \frac{[(O-E)^2]}{E} \\ &= 23.579 \end{aligned}$$

The tabulated value of chi square for 11 df at 0.5 level of significance = 19.675. In this case the result obtained from chi-square test shows that the calculated X^2 value is greater than the tabulated value. Hence it rejects the null hypothesis i.e. 'There is no any relationship between the resources and academic achievement of the students' and accepts that 'The adequate provision of physical resources help in better performance or better academic achievements of the students'.

Observation Report :

Following are the few situations which the researchers have observed during their field study :

1. Poor and illiterate parents consider it more profitable to use their children in household work than to sending them to school.
2. Study reveals that some parents are economically so weak that they cannot afford to meet even the minimum educational needs of children.
3. Most of the respondent guardian reveals that the environment of the school is not adequate for the students in some schools. Almost in all the sample state government schools have a big hall only where three or four classes are taken by the teacher at a time. It creates more serious problems in the schools.

Suggestions :

On the basis of findings obtained in the study the following effective suggestions are offered to help in removing the problems –

1. Material condition of primary schools should be brought to a satisfactory standard for improving quality of education.
2. Proper building accommodation with sufficient furniture for students and teachers should be provided.
3. Schools should be provided with science kit, radio sets and television sets for recreation and firsthand knowledge. Television can be considered as quick

- and powerful means of improving quality of education. Radio can intensively utilise in all primary schools in rural areas.
4. The traditional method of verbal teaching should be replaced by active and playful method of self learning through self activity.
 5. To make teaching learning situation more effective there should be provision of certain minimum facilities in the class rooms. Therefore, government or management should sanction sufficient amount of money to enrich the teaching equipments to all the schools.
 6. There should be proper provision for library and reading rooms in all the schools.
 7. The head of the institutions should be aware of teacher's activities, daily activities of the students and evaluation of answer scripts of the students by the concerned teachers.
 8. In order to improve scholastic achievement in the government aided, government recognised school and private school, there should be regular home assignments, class test, unit test etc.
 9. Number of enrolment in the class should be substantially reduced in favour of teacher's individual attention to students in the private schools.
 10. Until and unless if we cannot eradicate the poverty and illiteracy of the parents, we cannot think of proper development of the primary schools. So, massive programme of removing adult illiteracy among the backward community may help to improve the condition of primary education.

Conclusion :

The suggestions given above deserve careful consideration in the present study. Good education is possible only in that schools which are properly equipped. To ensure better academic achievement among the students we should lay emphasis on the improvement of various physical resources of the school. The future development of primary education in the Nazira town will be governed by the extent of basic physical resources and their proper utilisation, appropriate government policy and positive attitude of government officials. It is sincerely hoped that the present study will draw the attention of planners and policy

makers of Assam. Basically in Nazira town majority of the students of government primary schools are from the below poverty line family. Most of the parents are illiterate. As a result academic standard of the government primary schools are very pitiable. It is further hoped that our study will open a door to the researchers to pursue research at the micro level, covering all the aspects of primary education. The researchers hoped that promotional steps will be taken by all concerned departments to develop the physical resources of primary schools in such a manner that the promotional steps will be able to remove the illiteracy and raise the standard of primary education in a considerable way.

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