Basic Amenities for Quality of Education in Government Schools

With Special Reference to Rangareddy District

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Abstract: An effective school facility is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. School facilities improve the quality of the study environment in the school. In the present study respondents were enquired and visits by researcher substantiated the data by checking these amenities. About basic amenities of the school like cross ventilation of the class rooms, seating arrangement, electricity, clean washrooms, safe drinking water, ample play area, library, computer lab, laboratory, pupil-teacher ratio (PTR) and quality of education.

Key Words: Basic Amenities, Quality of education, Government schools, Pupil-Teacher Ratio (PTR)

1. INTRODUCTION:

In ancient India, schools were in the form of Gurukuls. Gurukuls were traditional Hindu residential learning schools, typically the teacher's house or a monastery. Schools today are commonly known by the Sanskrit terms Vidyashram, Vidyalayam, Vidya Mandir, Vidya Bhavan in India. In southern languages, it is known as Pallikoodam/PaadaSaalai or pathshala. During the Mughal rule, Madrasahs were introduced in India to educate the children of Muslim parents. British records show that indigenous education was widespread in the 18th century, with a school for every temple, mosque, or village in most regions. The subjects taught included Reading, Writing, Arithmetic, Theology, Law, Astronomy, Metaphysics, Ethics, Medical Science, and Religion.

Under British rule, Christian missionaries from England, the United States, and other countries established missionary and boarding schools in India. Later as these schools gained popularity, more were started, and some gained prestige. These schools marked the beginning of modern schooling in India. The syllabus and calendar they followed became the benchmark for schools in modern India. Today most schools follow the missionary school model for tutoring, subject/syllabus, and governance, with minor changes. Schools in India range from large campuses with thousands of students and heavy fees to schools where children are taught under a tree with a small / no campus and are free of cost. There are various boards of schools in India, namely Central Board for Secondary Education (CBSE), Council for the Indian School Certificate Examinations (CISCE), Madrasa Boards of various states, Matriculation Boards of various states, and State Boards of various states, Anglo Indian Board, among others. Today's typical syllabus includes Language(s), Mathematics, Science – Physics, Chemistry, Biology, Geography, History, General Knowledge, and Information Technology/Computer Science. Extracurricular activities include physical education/sports and cultural activities like music, choreography, painting, and theatre/drama.

A school is an educational institution designed to provide learning spaces and learning environments for the teaching of students under the direction of teachers. Most countries have systems of formal education, which is sometimes compulsory. In these systems, students’ progress through a series of schools. The names for these schools vary by country but generally include primary school for young children and secondary school for teenagers who have completed primary education. An institution where higher education is taught is commonly called a university college or university.

In addition to these core schools, students in a given country may also attend schools before and after the primary and secondary education. Kindergarten or preschool provides some schooling to very young children (typically ages 3–5). University, vocational school, college, or seminary may be available after secondary school. A school may be
dedicated to one particular field, such as a school of economics or dance. Alternative schools may provide non-traditional curriculum and methods.

Non-government schools, also known as private schools, may be required when the government does not supply adequate or specific educational needs. Other private schools can also be religious, such as Christian missionary schools, gurukula (Hindu schools), madrasa (Arabic schools), hawzas (Shi’as Muslim schools), yeshivas (Jewish schools), and others, or schools that have a higher standard of education or seek to foster other personal achievements. Schools for adults include institutions of corporate training, military education and training, and business schools.

In home schooling and distance education, teaching and learning take place independent from the institution of school or in a virtual school outside a traditional school building, respectively. Schools are organized in several different organizational models, including departmental, small learning communities, academies, integrated, and schools-within-a-school.

There has, unfortunately, come into existence, a big class, and caste divide together with a rural-urban divide in education, in terms of facilities and quality, which has serious social consequences and could lead to social disruption. Schools in backward rural and tribal areas are the most neglected, and the standard of teaching is deplorable. Even in other areas, schools to which children of the underprivileged have access are run by the State or local authorities. By and large, these have a poor record of performance. The most glaring of the problems with government-run schools is that of infrastructure. Poorly maintained buildings, dilapidated classrooms, ill-equipped libraries and laboratories, lack of sanitation facilities, and even drinking water are issues that the students deal with every day.

2. Condition of Government Schools in India:

Although India is amongst the ten fastest-growing economies in the world, it still has a one third of the world’s illiterates. With 34 per cent of the illiterate population in the world, India has the largest number of illiterates by far. Seventy-five years after independence, with 40 per cent of its population under 18, India is now confronting the perils of its failure to educate its citizens, notably the poor.

India, being a mixed economy, needs government intervention in the area of education because education driven by profit motive cannot benefit the masses. But the condition of government schools in India is pathetic. Except for two or three states, all the Indian states have poor educational statistics. More Indian children are in school than ever before, but the quality of government schools has sunk to spectacularly low levels. The children in these schools come from the poorest of families those who cannot afford to send away their young to private schools elsewhere, as do most Indian families who have the means.

India has long had a legacy of weak schooling for its young, even as it has promoted high-quality government-financed universities. If in the past, a largely poor and agrarian nation could afford to leave millions of its people illiterate, that is no longer the case. Not only has the high growth ensured that we have a shortage of skilled labourer, the nation’s many new roads, phones, and television sets have also fuelled new ambitions for economic advancement among its people and new expectations for schools to help them achieve it.

Even though many children attend schools, they remain ill-equipped. It is found that while many more children were sitting in class, vast numbers of them could not read, write or perform basic arithmetic, to say nothing of those who were not in school at all.

3. Objectives of the study:

1. To study the various characteristics of government schools such as school amenities like cross ventilation of the class rooms, seating arrangement, electricity, clean washrooms, safe drinking water, ample play area, library, computer lab and laboratory.

2. To know the Parent Teacher Ratio (PTR) in government schools.

3. To study the Quality of education of selected respondents through analysis and examination.

4. To study the association between school amenities and parent Teacher Ratio (PTR) and quality of education of Government school children.

4. Hypotheses

1. It is hypothesised that school amenities and the quality of education are associated.

2. Pupil teacher ratio and the quality of education are associated.
5. METHODOLOGY :

Research design

The researcher adopted a descriptive research design for the proposed study because this kind of design provides the researcher with a vast amount of information about many social factors. Describing certain characteristics of a sample or population of elements will enable the investigator to understand the social phenomena better.

Sampling

The researcher adopted simple random sampling method. This method is useful for obtaining a sample that will have specified characteristics are distributed in the population. The selection of random is based on computer-generated numbers. Respondents were from class 8 and 9 of three hundred twenty-four students from eight selected schools from three mandals of Rangareddy district namely Rajendranagar, Saroornagar and Hayatnagar.

Methods and tools of data collection

The researcher used observation sheet and ASER tool to collect the responses from the respondents. The observation sheet consist of questions on school amenities like cross ventilation of the class rooms, seating arrangement, electricity, clean washrooms, safe drinking water, ample play area, library, computer lab and laboratory. ASER tool were used to test basic reading and arithmetic skills of the respondents.

Data analysis and interpretation

The collected data was processed and simplified in order to quantify and measure the responses. A codebook is prepared, the codebook consists of numerical codes for each variable in order to measure the data. Thus the coded responses are entered in a master sheet. Then tabulation and percentage calculation is done through SPSS (statistical package for social sciences) on a computer. Thus the percentage is drawn and interpreted in each table.

Statistical tests used

The statistical tests such as range, quartiles, percentage and mean were calculated for univariate tables. And checked association between major variable and independent variables with the help of bivariate tables. Pearson chi - square test was administered to test the hypotheses.

6. ANALYSIS :

School amenities

An effective school facility is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. School facilities improve the quality of the study environment in the school. In the present study respondents were enquired and visits by researcher substantiated the data by checking these amenities. About basic amenities of the school like cross ventilation of the class rooms, seating arrangement, electricity, clean washrooms, safe drinking water, ample play area, library, computer lab and laboratory. Based on the responses given by the respondents for each facility, and the personal observation of the researcher. All the responses were summed up and each school was assigned a score. Based on the quartiles schools were divided into 1. Low amenities (15 to 17) 2. Moderate amenities (18 to 20) 3. High amenities (21 to 24). The frequency distribution of school amenities variable is presented in the table 1.1.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>School amenities score</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low amenities</td>
<td>121</td>
<td>37.3</td>
</tr>
<tr>
<td>2</td>
<td>Moderate amenities</td>
<td>123</td>
<td>38.0</td>
</tr>
<tr>
<td>3</td>
<td>High amenities</td>
<td>80</td>
<td>24.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>324</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1.1. shows that the amenities of the school. About one third (38.0 per cent) of the schools are having moderate amenities. Almost the same number (37.3 per cent) of the schools are having low amenities. About a quarter (24.7 per cent) schools are having high amenity score. Hence majority schools are of low and moderate amenities.
Pupil Teacher Ratio (PTR)

Pupil-Teacher Ratio (PTR) is an average number of pupils (students) per teacher at a specific level of education in a given academic year. Under the Right to Education Act 2009, which covers children between 6-14 years of age, the stipulated pupil-teacher ratio for primary classes and upper primary classes is 30:1 and 35:1 respectively. In the present study it is assumed that a low student-teacher ratio helps to ensure that every child gets to follow the activity properly and remain attentive throughout. Having less students in a class also means that the teacher can focus more on the individual requirements of each student. In this study actual parent teacher ratio was enquired into and responses were recorded. Based on the quartiles they were categorized as 1. Low PTR (22 to 39) 2. Moderate PTR (40 to 57) and High PTR (58 to 75). The frequency distribution of Pupil Teacher Ratio (PTR) variable is presented in the table 1.2.

Table 1.2. Pupil Teacher Ratio (PTR)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Pupil Teacher Ratio</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low PTR</td>
<td>82</td>
<td>25.3</td>
</tr>
<tr>
<td>2</td>
<td>Moderate PTR</td>
<td>161</td>
<td>49.7</td>
</tr>
<tr>
<td>3</td>
<td>High PTR</td>
<td>81</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>324</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1.2 shows the pupil teacher ratio. About half (49.7 per cent) of the schools got the moderate PTR which means that it is moderately effective. Almost quarter (25.3 per cent) are at low PTR which means that it is highly effective and a quarter (25.0 per cent) schools are at high PTR which means that it is low effective. Hence one fourth of the schools are having healthy pupil teacher ratio.

Quality of Education

ASER tools were administered to the students of classes 8 and 9 of each school. Each student was called separately and individually conducted reading test in English for English medium students and Telugu text for Telugu medium students. To test the level of their Mathematical ability, a basic arithmetic test with simple numbers and problems was administered and students were expected to solve those problems. With each student spent about 15 minutes and responses were recorded carefully. For reading test categories of responses were 1. Letter level 2. Word level 3. Paragraph level 4. Story level and for mathematics test the categories were 1. 1-9 Number recognition 2. 10-99 Number recognition 3. Subtraction level 4. Division level. Soon after the test responses were recorded separately for both reading and arithmetic tasks. These responses were summed up and each student assigned a score for quality of education. Based on the quartiles they were divided into 1. Low quality (4 to 8) 2. Moderate quality (9) 3. High quality (10). The frequency distribution of quality of education variable is presented in the table 1.3.

Table 1.3 Quality of Education

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Quality of Education</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low quality of education</td>
<td>77</td>
<td>23.8</td>
</tr>
<tr>
<td>2</td>
<td>Moderate quality of education</td>
<td>72</td>
<td>22.2</td>
</tr>
<tr>
<td>3</td>
<td>High quality of education</td>
<td>175</td>
<td>54.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>324</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1.3 shows that majority (54.0 per cent) of the students are of high quality of education, about quarter (23.8 per cent) of the respondents belong to low quality of education. Almost an equal (22.2 per cent) of them are of moderate quality of education. This explains us the majority of the students are of high quality of education, which means they are good at basic reading and athematic skills. Reading and basic arithmetic skills are the core fundamentals of education. It is to be understood that without practicing and encouraging children to master these skills, they will lack knowledge and fall behind in other subjects.

QUALITY OF EDUCATION * SCHOOL AMENITIES :

An effective school facility is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. School facilities improve the quality of the study environment in the school. In the present
study to know the association between school amenities and quality of education chi-square test applied. The result is presented in table 1.4.

Table 1.4. QUALITY OF EDUCATION*SCHOOL AMENITIES

<table>
<thead>
<tr>
<th>S. No.</th>
<th>School amenities</th>
<th>Quality of Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>1</td>
<td>Low amenities</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>(Between 15 to 17)</td>
<td>37.7%</td>
<td>50.0%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate amenities</td>
<td>30</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>(Between 18 to 20)</td>
<td>39.0%</td>
<td>36.1%</td>
</tr>
<tr>
<td>3</td>
<td>High amenities</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(Between 21 to 24)</td>
<td>23.3%</td>
<td>13.9%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>77</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>(23.8%)</td>
<td>(22.2%)</td>
<td>(54.0%)</td>
</tr>
</tbody>
</table>

Chi-square value is 9.763, degree of freedom 4, and the level of significance 0.045.

Table 1.4. shows that about a quarter (23.8 per cent) of the respondents are of low quality of education. Among them about one third (39.0 per cent) of the schools are of moderate amenities. An equal number (37.7 per cent) of the schools are of low amenities. About quarter (23.3 per cent) of the schools are of with high amenities.

Among all the respondents about a quarter (22.2 per cent) belong to moderate quality of education. Among them half (50.0 per cent) of the schools are of with low amenities. About one third (36.1 per cent) were belong to moderate amenities. A few (13.9 per cent) of the schools are of with high amenities.

The total number of respondents belong to high quality of education are more than half (54.0 per cent). Among them more than one third (38.3 per cent) of the schools are of with moderate amenities. About one third (32.0 per cent) were belong to low amenities. Almost an equal number (29.7 per cent) of the schools are of with high amenities.

The chi-square test was applied, results show that the chi-square value is 9.763, degree of freedom 4, and the level of significance 0.045. This shows that the association between school amenities and quality of education is statistically significant. These findings are clear and they point to the fact that there is a significant association between school amenities and quality of education and this hypothesis that was originally presented can be accepted.

The findings of the study indicate that students from adequate physical facilities which in good condition may influence students to perform well in learning process and academic achievement. Thus, the research concludes that school facilities may improve students' academic achievement.

QUALITY OF EDUCATION * PUPIL TEACHER RATIO (PTR)

Pupil Teacher Ratio (PTR) is an average number of pupils (students) per teacher at a specific level of education in a given academic year. Under the Right to Education Act 2009, which covers children between 6-14 years of age, the stipulated pupil-teacher ratio for primary classes and upper primary classes is 30:1 and 35:1 respectively. In the present study to know the association between pupil teacher ratio (PTR) and quality of education chi-square test applied. The result is presented in table 1.5.

Table 1.5. QUALITY OF EDUCATION*PUPIL TEACHER RATIO (PTR)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Pupil teacher ratio (PTR)</th>
<th>Quality of Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>1</td>
<td>Low PTR</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>(Between 22 to 39)</td>
<td>26.0%</td>
<td>18.1%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate PTR</td>
<td>35</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>(Between 40 to 57)</td>
<td>45.4%</td>
<td>54.2%</td>
</tr>
</tbody>
</table>
Table 1.5. shows that about a quarter (23.8 per cent) of the respondents are of low quality of education. Among them less than half (45.4 per cent) of the schools are of high PTR. About one third (28.6 per cent) of the schools are of high PTR. About quarter (26.0 per cent) of the schools are of with low PTR.

Among all the respondents about a quarter (22.2 per cent) belong to moderate quality of education. Among them more than half (54.2 per cent) of the schools are of with moderate PTR. About quarter (27.7 per cent) were belong to high PTR. A few (18.1per cent) of the schools are of with low PTR.

The total number of respondents belong to high quality of education are more than half (54.0 per cent). Among them about half (49.7 per cent) of the schools are of with moderate PTR. About one third (28.0 per cent) were belong to low PTR. A little less than quarter (22.3 per cent) of the schools are of with high PTR.

The chi-square test was applied, results show that the chi-square value is 3.710, degree of freedom 4, and the level of significance 0.447. This shows that the association between pupil teacher ratio (PTR) and quality of education is statistically insignificant. Based on this evidence the hypothesis that was framed stating there is an association between pupil teacher ratio (PTR) and quality of education can be rejected.

7. CONCLUSIONS AND FINDINGS:

The majority of the students are of high quality of education, which means they are good at basic reading and arithmetic skills. Reading and basic arithmetic skills are the core fundamentals of education. It is to be understood that without practicing and encouraging children to master these skills, they will lack knowledge and fall behind in other subjects.

Amenities offered by a school directly affect the health, behaviour, engagement, learning, and growth of the students. Thus, it is of prime importance that every school should be equipped with adequate facilities that could develop an environment which is conducive to learning. Here is a detailed list of basic school facilities that should be provided to the students: Cross ventilated class rooms, comfortable seating arrangement, electricity, clean washrooms, safe drinking water, ample play area, library, computer lab and laboratory. Hence majority schools got low and moderate score for amenities. The association between school amenities and quality of education is statistically significant. These findings are clear and they point to the fact that there is a significant association between school amenities and quality of education and this hypothesis that was originally presented can be accepted.

The findings of the study indicate that students from adequate physical facilities which in good condition may influence students to perform well in learning process and academic achievement. Thus, the research concludes that school facilities may improve students' academic achievement.

It is assumed that a low student-teacher ratio helps to ensure that every child gets to follow the activity properly and remain attentive throughout. Having less students in a class also means that the teacher can focus more on the individual requirements of each student. Only one fourth of the schools are having healthy pupil teacher ratio.

The association between pupil teacher ratio (PTR) and quality of education is statistically insignificant. Based on this evidence the hypothesis that was framed stating there is an association between pupil teacher ratio (PTR) and quality of education can be rejected.

REFERENCES:
