



# Amitrakshar International Journal

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# ASSESSMENT OF INFRASTRUCTURAL FACILITIES IN PRE-PRIMARY EDUCATION: A FIELD STUDY

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### Abstract

The study investigates the status of infrastructure facilities in pre-primary schools through a comparative analysis of private and government pre-primary school. For the present study descriptive survey method were employed, data were collected from 15 pre-primary schools (9 private and 6 government) with the help of an observation checklist. The study is based on key parameters which includes building condition, hygienic toilets, classrooms, play areas, electricity, and drinking water. Findings: Private schools demonstrate a higher level of infrastructure development (77.8%) compared to Government schools (54.8%). While basic facilities are available in both sectors, government schools show notable deficiencies in sanitation and play facilities. Electricity is relatively adequate in both, whereas drinking water quality requires improvement in government schools, is essential for ensuring a safe and effective early childhood learning environment.

**Keywords:** Pre-Primary School, Parameters, Infrastructural facilities, Environment



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### Introduction

Pre-primary education which is the foundation of a child’s overall development plays a significant role in foundation stage according to NEP 2020. It is the quality of infrastructural that plays a critical role in ensuring a safe, healthy and stimulating learning environment. Adequate facilities which includes proper building, sanitation, indoor as well as outdoor play area and basic amenities directly influence children’s cognitive, affective and psychomotor development.

Education which is the planned effort to develop the potential of a child within by creating conscious learning atmosphere. The quality of life of a person depends on the primary education and one gets from the state (Konwar,2017)

Pre-primary education is the initial stage of formal schooling, where instructions are organize and designed to acquaint very young children to a school type environment which act as a bridge between the school and the home based atmosphere. It provides the initial structured learning experience for children for the age group of three to six years which pre-prepared them for formal schooling. The basic purpose of primary education is to offer children a pure foundation on the basic of a curriculum (Aggarwal, 2013)

The focuses of initial formal schooling, according to NEP 2020 is on holistic development, nurturing essential skills in literacy, numeracy, language, physical health and social-emotional well-being through play based learning and exploration. It is this formative stage which makes a strong foundation for the development of confidence, resilience, creativity and critical thinking sets a strong foundation for future academic as well as life success.

The school infrastructure facilities are all sets of equipment’s, materials and furniture’s that are used in the school during the educational process (Bafadal, 2004). It refers to the components that attract and supports the learning process and ensure the safety and well-being of students. It is a need in the teaching learning process. It is an external factors that

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supports process of learning achievement (Ni'amissa'adah, A. et al, 2022). It creates a conducive educational environment. Puspitasari (2016) and Djamarah & Zain (2008) in their study quoted that "everyone will agree that educational facilities and infrastructure will determine one's success."Some of the key components included in infrastructure in relation to pre-primary schools are proper building, classroom, toilet facilities, indoor play area, playground, safety measures. A secure, accessible and well maintained school infrastructure foster creativity and growth. It also supports holistic learning experience and overall student development.

With the formalization of pre-primary education, according to NEP 2020 it become the area of interest of several researcher to know about the pre-primary education. Since it is just the beginning of formal education, special focus is required in this stage of education. According to the famous Quote "First impression is the last impression", infrastructure facility and attractive environment in the school can attract the students to be a part of regular school. Thus, the government in order to attract the youngest generation towards the formal school and expect their retention. Proper infrastructural facilities need to be provided in the school as it will motivate the students to be regular in the school. Knowing the importance of infrastructure in the school and its impact on the students overall growth and development, the researcher in the present study would like to study on the topic entitled "A Study on the Infrastructural facilities for pre-primary education" for analyzing infrastructure facilities which is essential to understand the current and gaps in early childhood education settings.

### Objectives of the study:

To find out the infrastructural facilities in Government and Private Pre-Primary Schools of Tripura west districts of Agartala based on the following parameters:

1. Proper building
2. Hygienic classroom
3. Hygienic toilet
4. Electricity
5. Safe drinking water
6. Play ground
7. Indoor play area

### Research Questions:

1. What is the condition of infrastructural facilities in pre-primary Schools?
2. Are basic facilities like toilets, water and electricity available?
3. Do schools provide adequate play areas for children?

### Delimitation of the Study

1. The present study is delimited to only Tripura West District of Agartala.
2. Only schools in AMC block were selected for the study
3. Only 30% of pre-primary school of AMC block were selected as the sample of the study

### Research Methodolog

#### Research Design

Descriptive survey method were employed for the analysis of the existing infrastructural facilities.

#### Population & Sampling

Research for the present study used Multi-Stage Random Sampling to select the district. Out of 8 district of Agartala, Tripura West district of Agartala were selected. And there are 9 blocks in Tripura west district, AMC block were randomly selected as the sample of the study. Total 45 pre-primary schools are there in AMC Block of which 28 are privately aided schools and 17 government schools. Researcher due to time constraint selected 30% of pre-primary school which is 9 privately aided schools and 6 government schools as the sample of the study.

#### Tools for Data Collection

1. Observation Checklist
2. Field Notes
3. Optional Scoring system for analysis

Response	Score
Good	2
Average	1
Poor/Not Available	0



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### Analysis and Interpretation of Data

**Objective:** To find out the infrastructural facilities in Government and Private Pre-Primary Schools of Tripura west districts of Agartala based on the below parameters:

**Table: 1 Parameter-wise Score Summery for Government Pre-Primary School**

Infrastructural Facilities	Max Score (Govt=12)	Obtained Score	Percentage (Govt)
Proper building	12	8	66.7%
Hygienic classroom	12	6	50.0%
Hygienic toilet	12	7	58.3%
Electricity	12	4	33.3%
Safe drinking water	12	5	41.7%
Play ground	12	9	75.0%
Indoor play area	12	7	58.3%

Table: 1 indicates that the government pre-primary schools indicates a moderate level of infrastructure development, where basic facilities are present but lack quality and consistency. While building conditions (66.7%) and electricity (75.0%) are relatively satisfactory, critical areas such as hygienic toilets (50.0%), classrooms (58.3%) and safe drinking water (58.3%) reflects only average standards with concerns related to cleanliness and maintenance. The most significant deficiencies are observed in indoor (33.3%) and outdoor play areas (41.7%), highlighting limited opportunities for activity-based and physical development. Overall, the findings suggest that government schools require substantial improvement in sanitation, play facilities and maintenance to ensure a safe, child-friendly and effective early learning environment.

**Objective:** To find out the infrastructural facilities in Government and Private Pre-Primary Schools of Tripura west districts of Agartala based on the below parameters:

**Table: 2 Parameter-wise Score Summery for Private Pre-Primary School**

Infrastructural Facilities	Max (Private=18)	Score	Obtained Score	Percentage (private)
Proper building	18	14	14	77.8%
Hygienic classroom	18	13	13	72.2%
Hygienic toilet	18	15	15	83.3%
Electricity	18	12	12	66.7%
Safe drinking water	18	13	13	72.2%
Play ground	18	16	16	88.9%
Indoor play area	18	15	15	83.3%

Table 2: Shows that in private pre-primary schools the building conditions (77.8%) hygienic classrooms (83.3%) and safe drinking water (83.3%) demonstrate well-maintained and child-friendly environments that support effective learning. Facilities such as hygienic toilets (72.2%) and outdoor play areas (72.2%) are also satisfactory, through there is still scope for improvement in cleanliness and safety measures. Electricity availability (88.9%) is strong and ensures a comfortable learning environment. However, indoor play areas (66.7%) show comparatively lower scores, indicating some limitations in activity-based learning resources. Overall, private schools provide a more conducive are resource-rich environment, through continuous improvement is needed to achieve optimal standards across all parameters.

**Table: 3 Overall Percentage Comparison**

Category	Total Max Score	Obtained Score	Percentage
Private Schools	126	98	77.8%
Government Schools	84	46	54.8%

Table: 3 shows overall comparative analysis revels a clear disparity in infrastructure facilities between private and government pre-primary schools. Private schools, with an overall score of 77.8%, demonstrate a high level of infrastructural development, offering better-maintained buildings, cleaner classrooms more reliable basic amenities and comparatively adequate play facilities. In contrast, government schools with 54.8% reflect only a moderate level of development, where basic facilities exist but lack quality, consistency and proper maintenance. The gap is particularly evident in sanitation and play related infrastructure which are crucial for young children’s health and holistic development. Although both sector show relatively satisfactory performance in electricity and basic building availability



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the overall findings indicate that the private schools provides a more conducive and child-friendly learning environment while government schools require significant improvement to meet minimum standards of early childhood education.

### Findings of the Study

**Research Question 1:** What is the condition of infrastructural facilities in pre-primary Schools?

**Answer:** The Condition of Infrastructural facilities in pre-primary schools varies across sectors. Private schools demonstrate a higher level of development (77.8%), whereas government schools show moderate condition (54.8%). This suggests that although basic facilities are available in both, quality and maintenance are significantly better in private institutions. Therefore, the overall condition is satisfactory in private schools but needs improvement in government schools.

**Research Question 2:** Are basic facilities like toilets, water and electricity available?

**Answer:** Basic facilities such as electricity are largely available in both private (88.9%) and government schools (75.0%). However, sanitation and drinking water facilities show disparities, with government schools lagging behind in cleanliness and quality. This indicates that while availability exists, the standard of these facilities is not uniform. Hence, basic facilities are present but not equally adequate across all schools.

**Research Questions 3:** Do schools provide adequate play areas for children?

**Answer:** Private Schools provides relatively better indoor (66.7%) and outdoor (72.2%) play facilities, whereas government schools show significant deficiencies, particularly in door ply areas (33.3%). This reflects limited opportunities for activity-based and physical development in government schools. Therefore, play facilities are adequate in private schools but insufficient in government schools.

### Result and Discussion

- Most school have basic infrastructural facilities; however some lack child-friendly infrastructure and proper maintenance required up to the desired standard.
- Classrooms are moderately clean in some of the schools, but overcrowding and ventilation issues exist in certain cases.
- Hygiene and sanitation facilities need improvement in both the type of institution.
- Limited availability of indoor play materials, activity based learning is not fully supported.
- Major gap were found in the indoor play area, hygienic toilets and outdoor play area of the government schools.
- There is no adequate outdoor play area due to space constraints, which is necessary along with indoor play area for the holistic development.
- Maintenance and monitoring and inadequate in many government schools as compare to pivate.
- Electricity and drinking water were relatively better in both the sector
- Private schools perform consistently higher across all parameters.

### Conclusion

Infrastructure which is very important component of the teaching learning process play a significant and impactful role for effective and meaningful learning. The study reveals that although pre-primary schools provides basic infrastructural facility, there are significant gaps in quality and maintenance. Improving these facilities is essential for creating a safe and effective learning environment for young children. Also observed after data analysis that while both types of schools provides basic infrastructural facilities, private schools are significantly better equipped. Government schools required improvement especially in sanitation and play facilities, which are crucial for early childhood development.

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