

AN ENQUIRY ON SPATIAL ANALYSIS OF SCHOOL EDUCATION OF HOOGHLY DISTRICT, WEST BENGAL, INDIA

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Abstract:

Education is a social instrument for developing human resource formation. It is essential for all over development. School education is the basic step for developing higher education also. Schools are suffering from different infrastructural problems, which is not good for academic development. The main enquires are present situation of school education of Hooghly district with spatial scale.

Key words:

Education, Empowerment, Literacy, Accessibility, Curricular

Introduction:

Education is an important variable for essential social development. It is the basis of creation and dissemination system that triggers technical progress, which is the main component of economic growth. Improvement in educational level indicated improvement in the quality of human resources (Chandna and Sindhu, 1980). Education is that constructive progress, which drags a person out from darkness, poverty and misery and leads him on the poles of enlightenment, prosperity and happiness by developing his individuality in all its aspects i.e., physical, mental health becomes responsible, dynamic, resourceful and enterprising citizen of strong and good moral character. He uses all his capabilities to develop his own self, his society and his nation to the highest extent by contributing to nation, honour, national groovy, culture and civilization (Sodhi and Suri, 1998).

Education plays a vital role in human life. It is one of the most important factors of development. Socio-Economic developmental conditions in any society depend upon the availability of education facilities. In the early days schooling may not have been widely available nor have the opportunities been abundant for educated people. But its need was felt very much because it is a vehicle, which helps in conveying ideas, thoughts and events over time and space and therefore it is an instrument for conveying information as well as containing information. It also involves all round development of human personality bringing out the best in men. The purpose of education is therefore, to make the human being capable and develop their competence and skills to meet challenges of life.

Education is considered as a social instrument for developing human resources and human capital formation. However, the relationship between educational and development is not as simple as it appears to be. Education becomes meaningful when it provides knowledge, skill of reading, writing and for solving the problem and improving the quality of life.

Education, Organized and oriented on these lines is certainly going to have a lasting impact on income, agricultural productivity, fertility rate, birth spacing, pre and postnatal health, nutrition, knowledge, attitudes and values.

Education is crucial to every aspect of social and economic development. Education is increasingly being recognized to be the heart of the developmental process. For this, three dynamically inter-related factors are involved: the economic benefits of education, the impact of education on population growth, health and social well being and the relationship between education and democratic society (UNESCO, 2001.)

Literacy rate 77.08 % above, the national average is 74.04 % as per census 2011, west Bengal rank 13th amongst the 35 states & Union Territories of India. The district level Literacy rate varies from 60.13% in Uttar Dinajpur to 87.14% in Kolkata, Hooghly district has to gross Literacy rate 82.55%, where the male Literacy percentage is 76.36%. The major challenges faced for improving the Literacy rate are lack of consciousness among the first generation learners, dropouts, childlabours, early marriage of girl child etc. Various projects have been implemented both by the Central and State government to improve the education system our country. Projects like implemented to inhibit the dropouts & restrict the students to classes.

Inspite of all the efforts India is far from reaching 100% literacy in its states. The study aims to unfold the real situation in West Bengal does not permit cent percent literacy in spite of the govt. projects.

Review of literature:

Spatiality is one of the dimensions that influence the whole process of schooling. The concentration or de-concentration of schools, the convergence or non-convergence of school, the aspects of accessibility and schooling momentum, spatial planning of school location and lacunae are some of the spatial aspects upon which the school education heavily depends on.

Ray (1982), tried to diagnose the spatial dimension of school education, the significance of block-level disparity regarding qualitative and quantitative aspects of school education and mapping of the exact locations of schools.

The study is almost a pioneering effort in India to consider school cluster as an area of investigation. School education responds differentially in different geo-environmental settings. Differences are there between the urban and non-urban areas in a broader spatial context between the various types of managements of education and within the urban and rural areas, education spaces embrace dynamicity.

Spatial analysis of school education is a significant indicator of the relative development of the region spatiality indicates spatial relation and design. In social spaces, of which education spaces form an integral part, spatiality has wider connotations. The quality of school education depends on large number of factors including the structural resources available to that school. School infrastructure, such as the site, buildings, furniture and equipments contribute to a learning environment.

Objectives:

1. To study the dichotomy concentration of school of rural urban areas.
2. To study the level of literacy between different castes & gender.
3. To study the effect of different govt. projects on the rate of dropouts.
4. To identify the socio-Economic problems which lead dropouts.
5. To provide management practices to enhance the literacy rate.
6. To study the modern technological inputs in school education.

Hypothesis:

Null & Alternative hypothesis as such as case-control and cross sectional study are the main hypothesis of the study purpose.

Materials & Methods:

- A. Census of India
- B. Study designs
- C. Study Settings
- D. Sampling
- E. Variables
- F. Investigation
- G. Mapping through GIS
- H. GPS Location
- I. Statistical analysis of data.
- J. Primary data collection through questionnaire survey.

Statement Of problem:

The study aims to unfold the real situation in west Bengal which 100% literacy inspite of the govt. projects. The main focus of the study is interesting to analysis the spatio temporal educational surface of Hooghly District. How Infrastructural development is influence upon educational quality of the district.

Study Area:

Hooghly district of west Bengal has been selected for the present study. The district of Hugli is a very well drained riverine fertile tract having multi-crop agricultural fields. The eastern part of the district is bounded by the river Ganges is industrial in character, consisting of 10 municipalities continuously elongated. These contagious municipalities have been dominated by four colonial rules viz The Portugese, The French, The Dutch & British. So, the district's defined History & Geography makes it interesting to analysis the spatial educational surface of Hooghly District.

(Location map & representation of various schools in a Hooghly district)

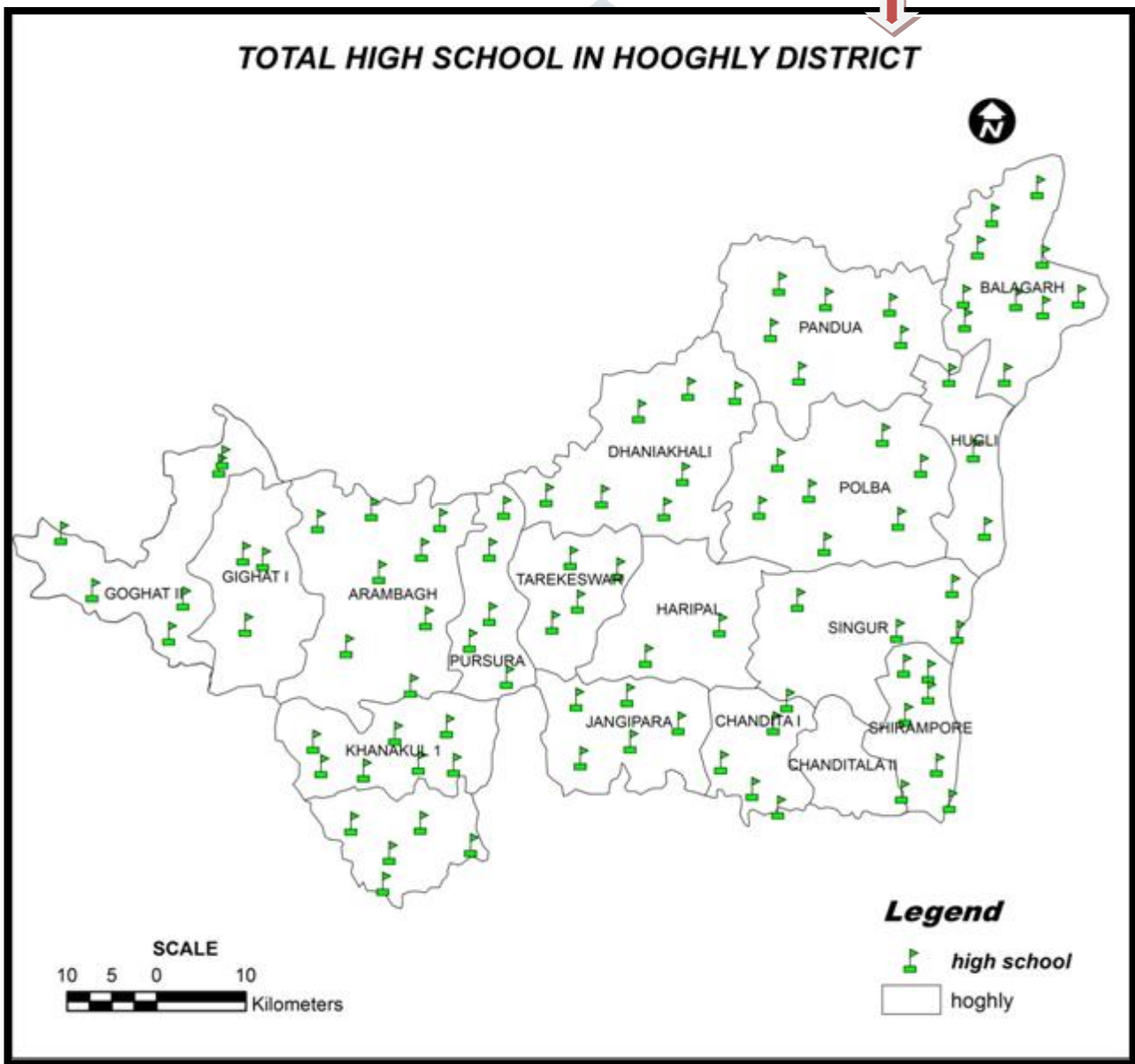
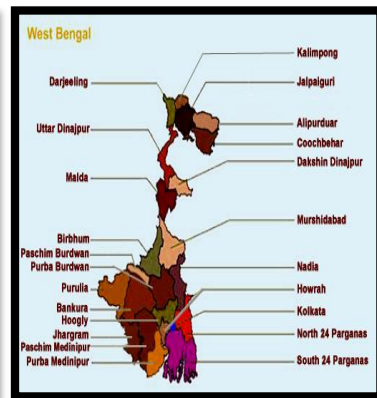
(INDIA)



(WEST BENGAL)



(HOOGHLY)



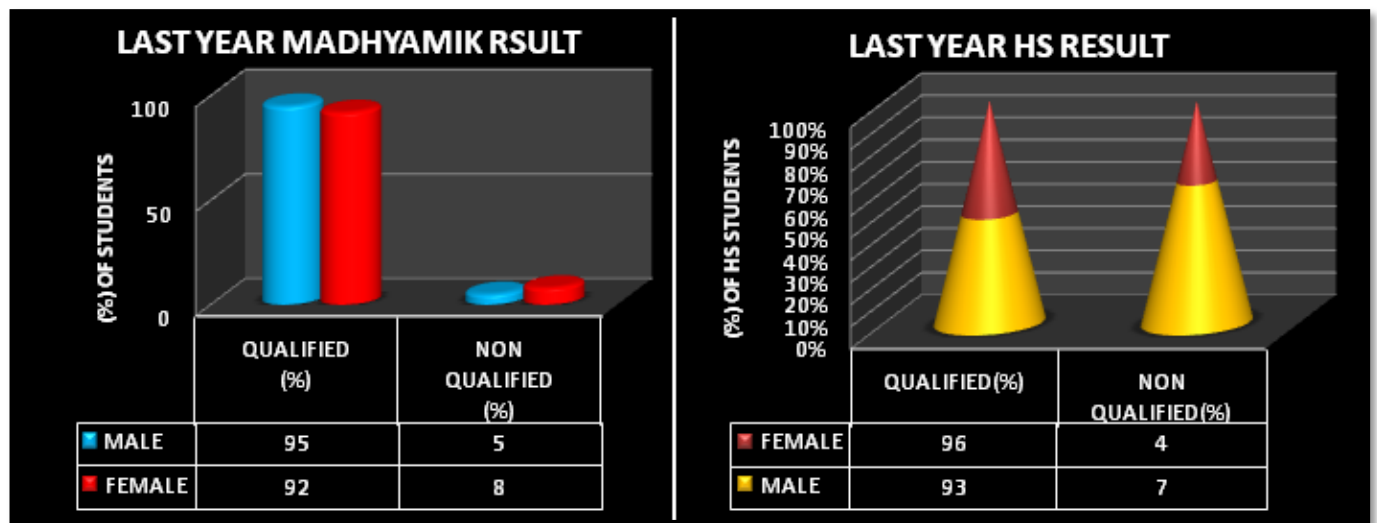
(SCHOOL DISTRIBUTION MAP EXTRACTED BY ARC-GIS)

Findings & Results:

Academic performance:

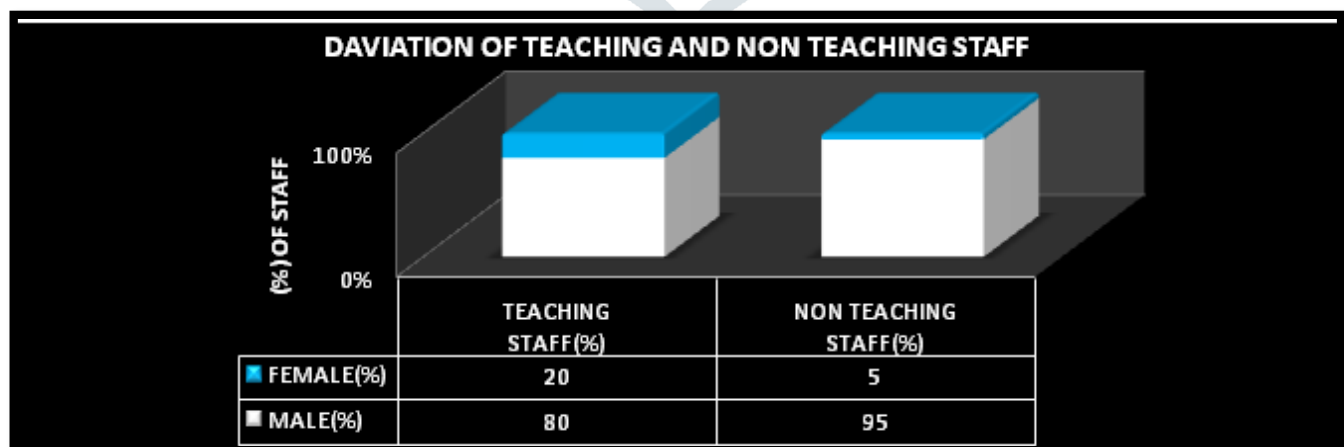
Considering Madhyamik result 95% male students are qualified and it is 92% for female students. Therefore, non-qualified student's percentage is very minimum. So, academic performance in Madhyamik result is significant and male student's performance is better than female students.

Considering Higher secondary result male students are qualified 93% and it is 96% for female students. Non qualified percentage is very minimum. Academic performances of H.S student are significant and female student's percentage is much higher than male students. This is so interesting and important for progress of female education.



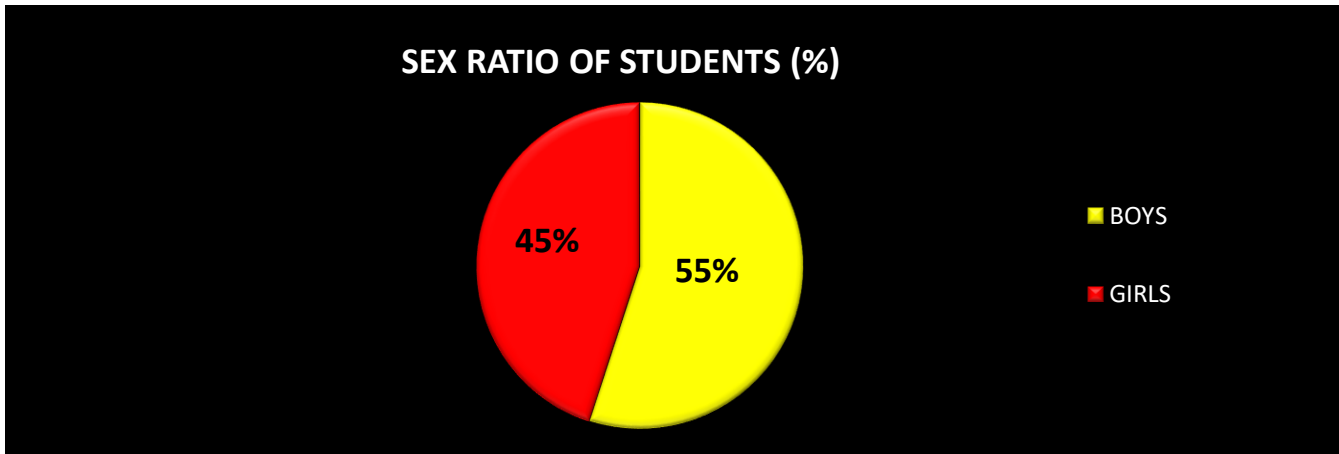
Teaching and non-teaching staff:

Percentage of male teacher is much higher than the female teacher. But in case of the non teaching staff, male staffs are significantly higher than female. Female teacher participation are minimum than the male teachers because male dominancy staff in co-ed school and this is not significant and is very much imbalance for proper functioning of school activity mainly for students for their caring and guidance by female teachers. This trend of teaching staff are very much exception in this surface at the present time.



Sex ratio of students:

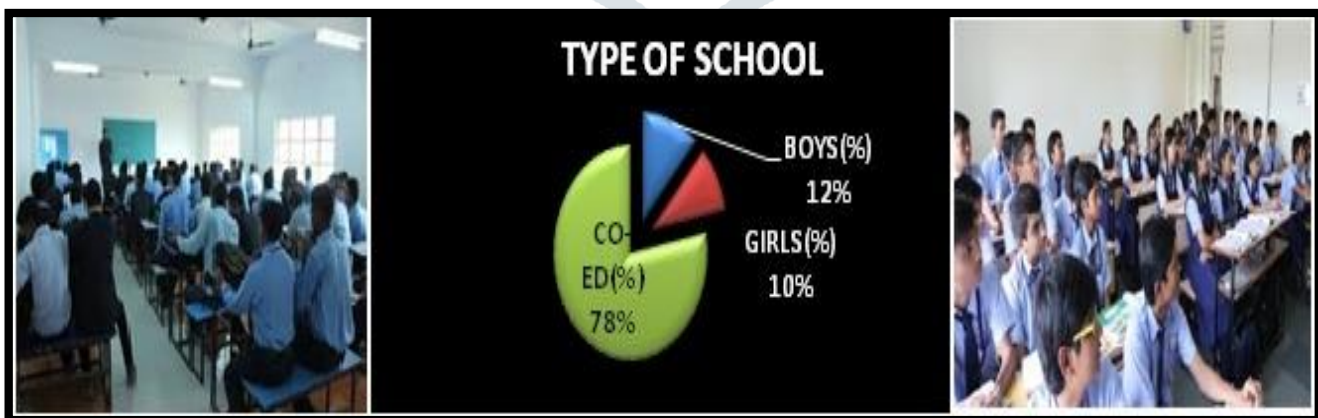
Generally percentage of female students which is less than male students represents attendance of female students is not similar to male student’s attendance due to dropout, rural surroundings, illiteracy of parents, attitudes towards female child and so on. 55% students are boys, and girl students are 45%, balanced in nature and increasing dominance of Boys students are a general trend in school education. Hooghly is not exceptional district.



Types of school:

From the survey result it is observed that 78% are co-ed schools, 12% are Boys school and 10% girls schools. So, most of the school are generally co-ed. It is significant because male and female participation from classroom to other school activity are jointly co-operates and it maintain the balanced development of their livelihood pattern from school level.

Co-education school is very much significant in that sense because both male and female students are jointly participate in all activities and gender discrimination gradually removes for their joint engagement in all programs and all the activities in school level socially, culturally and academically.



Boys school and co-ed school class teaching running)

Nature of buildings:

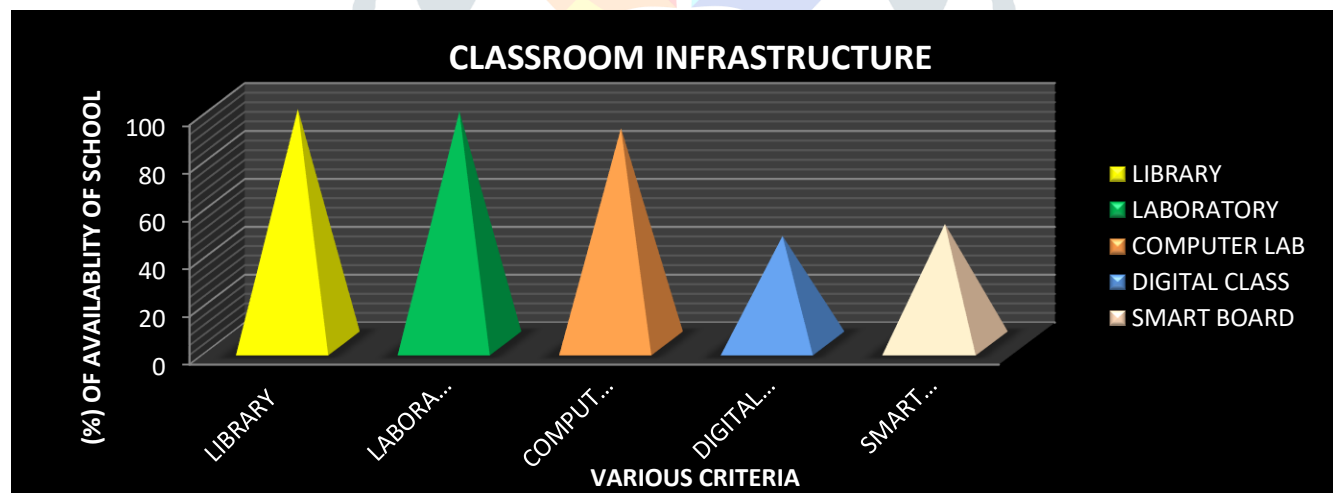
Most of the school buildings are three storied (85%), next is two storied (12%); one storied building is very much insignificant (3%). So, therefore considering the nature of building in most of the schools are developed according to their area, fund and management. It is very important that, three storied buildings are essentially reflects infrastructural development from academic point of view.



(Nature of buildings & multi, two, one storied school buildings)

Academic infrastructure:

Considering academic infrastructure, availability of library (98%); laboratory (97%) and computer lab (90%) are significant. But digital class or use of smart-board in the classroom is not up-to the mark. From this distribution it may be said that modern infrastructure and their application are generally increasing in this district. Proper planning and allocation of funds are important for more up-gradation for modern technological inputs of study area.

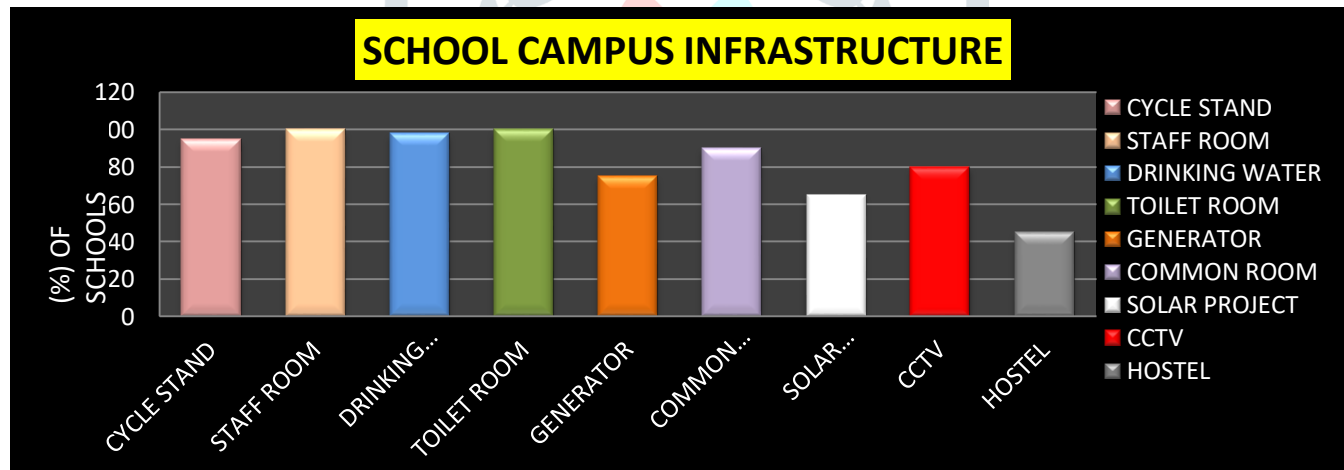


(Smart board class-rooms, Computer laboratory, Digital classrooms in school)

School campus infrastructure:

Considering school campus infrastructure, cycle stands (95%); staffroom (100%); toilets (100%); drinking water (98%); common rooms (90%) are significant of all the institutions in Hooghly districts and up-to the mark. Utility of CCTV is 80% which is very important for classroom discipline and all round discipline for the students. Solar project facility is 65%, which is additional for less power consumption of the institution energy supply. Percentage of use of generator (75%) helps to continue supply of power mainly during power cut and it is only significant for academic purpose and administrative purpose smoothly. Hostel facility is only 45% because most of the schools are established within the range of students household. So, due to abundant facilities of institution, students are frequently moves to schools daily and schools are not also interested for establishment of hostel within their campus.

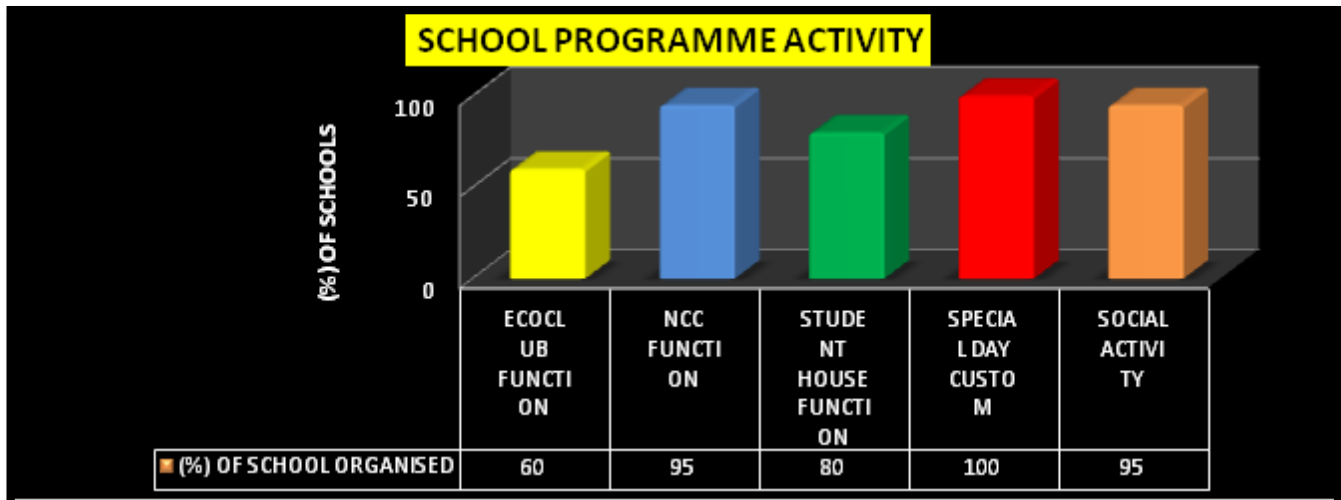
Installation of biometry will be another outlook for academic discipline of both students and teachers. So, installation of biometry is also important step for school infrastructure, which will be started at the present time of few institutions in Hooghly district. Installation of aqua-guard is also necessary for safe drinking water of students. Some of the institutions are undertaken this project but this is not significant in this district.



(Generator facility, cycle stand, toilet rooms, drinking water facility)

School program activity:

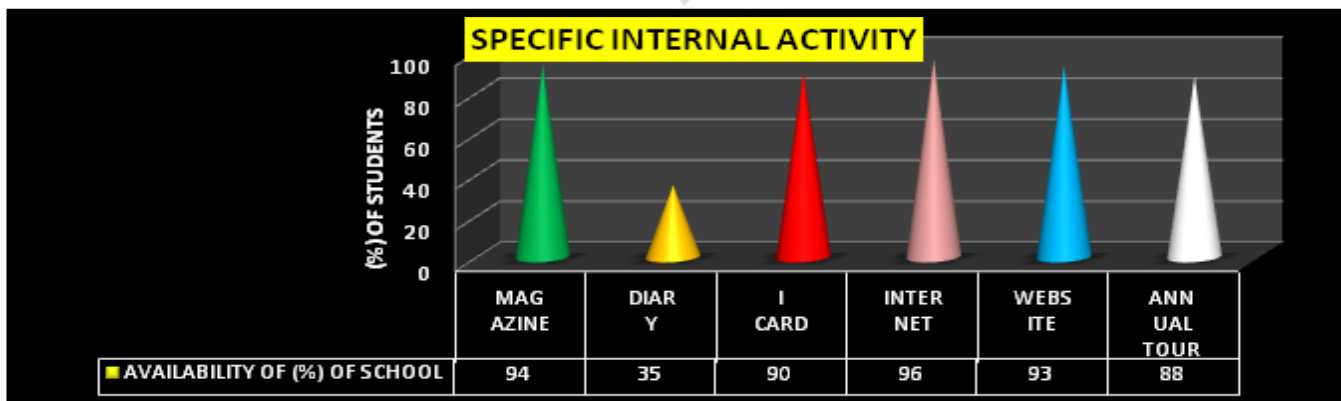
Availability of school program or activities like NCC, special day celebration, sports activity, cultural programs are also significant. But function of eco-club is not properly utilized of all of the institution, which is negative for environmental consciousness of all students.



(NCC training, Tree plantation with boys & girls, cultural program)

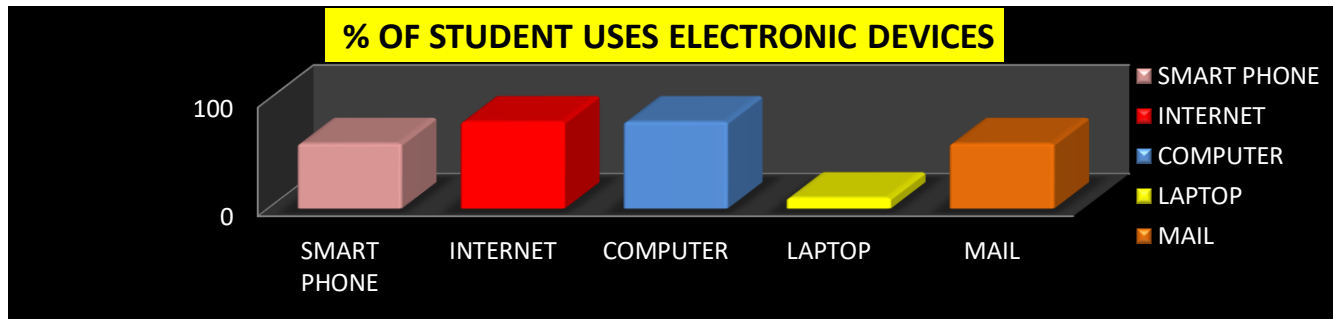
Special internal activities:

Special internal classroom discipline as well as internal activity has properly functioning in all of the institution of this district. But proper maintenance of diary has very minimum and which impact on academic and discipline of the institution.



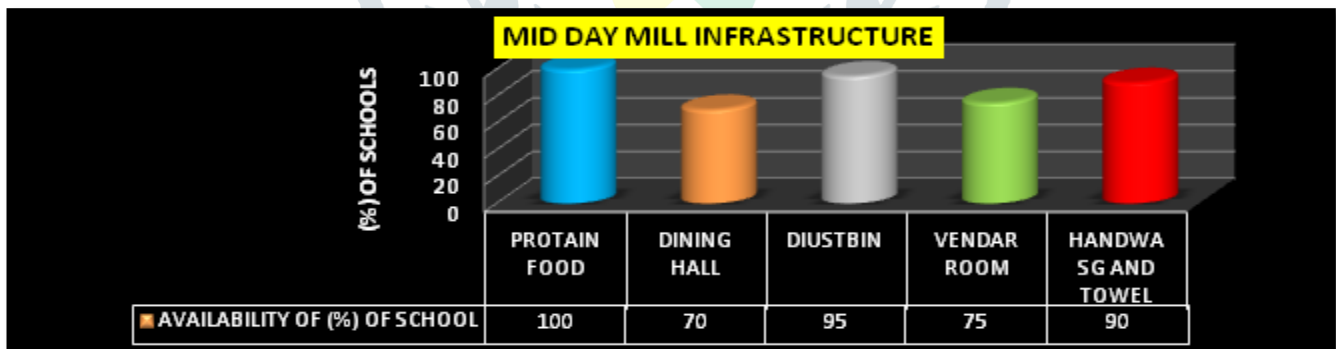
Uses of electronic devices:

Considering samples it is noticed that 80% students are used computer as well as internet services. Percentages of smart-phone users are 60%, percentage of e-mail users are same but only 10% students are used laptop. Utility of internet as well as computer are one of the important parameter for technological up-gradation of academic purpose. They are also frequently uses smart-phone and Gmail for their academic purpose as well as others. Most of the students are accommodates in electronic devices. So this indicates technological progress in academic purpose. But sometimes it has a negative impact because they are frequently engage in entertainment purpose like games, whatsapp, facebook, etc. So, it influences negative impact for their academic life.



Mid-day-mill facility:

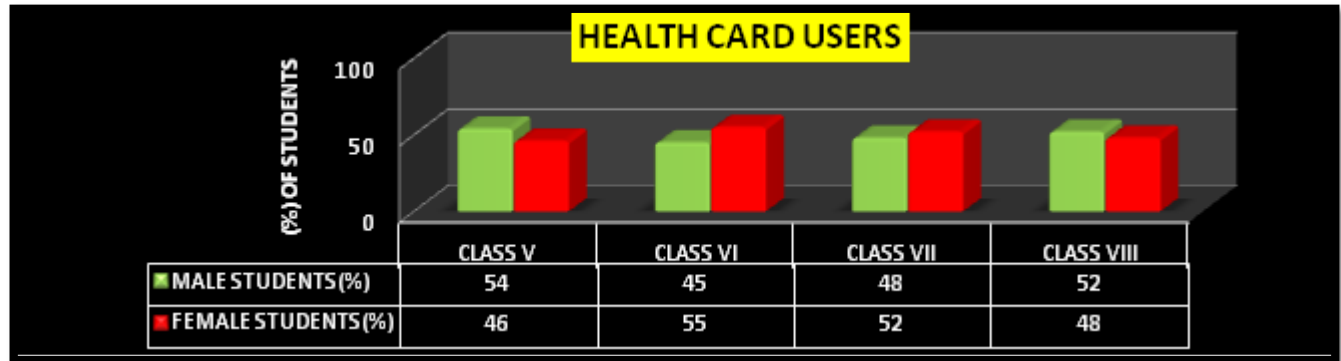
Mid-day-mill infrastructure has satisfied because facility of protein food (100%), uses of dustbin (95%); uses of hand-wash (90%), vendor room availability (75%), dining hall (70%). Arrangement of dining hall is not 100 % which is problems for students for taking mill during Mid-Day-Mill time. Arrangement of vendor room or store room is also necessary increasing for stalks of mid-day-mill. But, according to survey, quality of foods is necessary for increasing with different items. Otherwise, it will be monotonous for every student.



(Mid-day-mill; dining hall and use of dustbin)

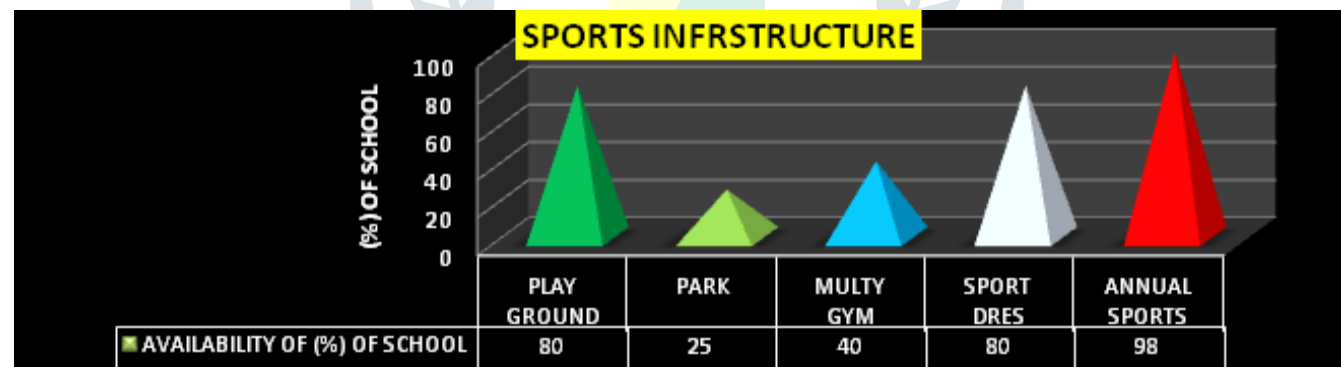
Student’s health:

West-Bengal government has undertaken student welfare considering their health issues. Distribution of health card and its services are very much important project at the present time. Considering sample survey percentages of health card users are moderate in nature which is range between 42%-60%. So, this is not satisfactory because they are not conscious about this scheme or inaccessibility of this project. So, therefore this program is popularized in this district through camp, rally, parents meeting, advertisement, mass media etc.



Sports infrastructure:

Most of the school has playground (80%) but, this is not satisfied because 20% school has no playground. 98% schools arrange annual sports program, which is significant because it is the part of education. 80% school has own sports dress of that institution. Multi-gym facility (40%) is not up-to the mark which helps to growth of their mental health and physical health. Percentage of park is 25 due to lack of their area, funds as well as problems of school administration and planning.

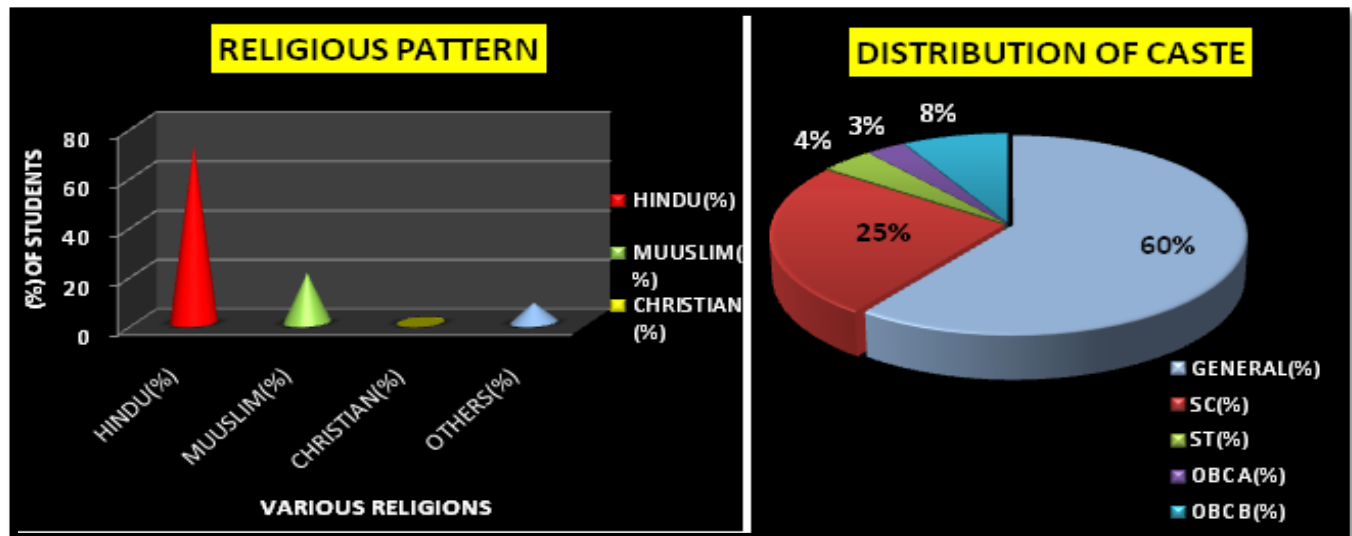


(Play ground & ground with football play; multi-gym room infrastructure)

Religion & Caste pattern:

Most of the students in Hooghly districts are Hindu religion (72%); Muslims are 20% and others religions of that region detected only 8%. So, most of the students of this district belongs to Hindu families.

Considering distribution of caste, it is noticed that general caste students are about 60% of the whole region; next is SC student (25%); OBC B is only 8%; OBC A is 3% and percentage of ST students is 4. So, from this profile it may be said that general caste are dominant in this district. So, on the economic view point Hooghly district is more or less develop because percentage of backward classes are relatively less comparing general caste students.



Sabooj-Sathi prakalpa:

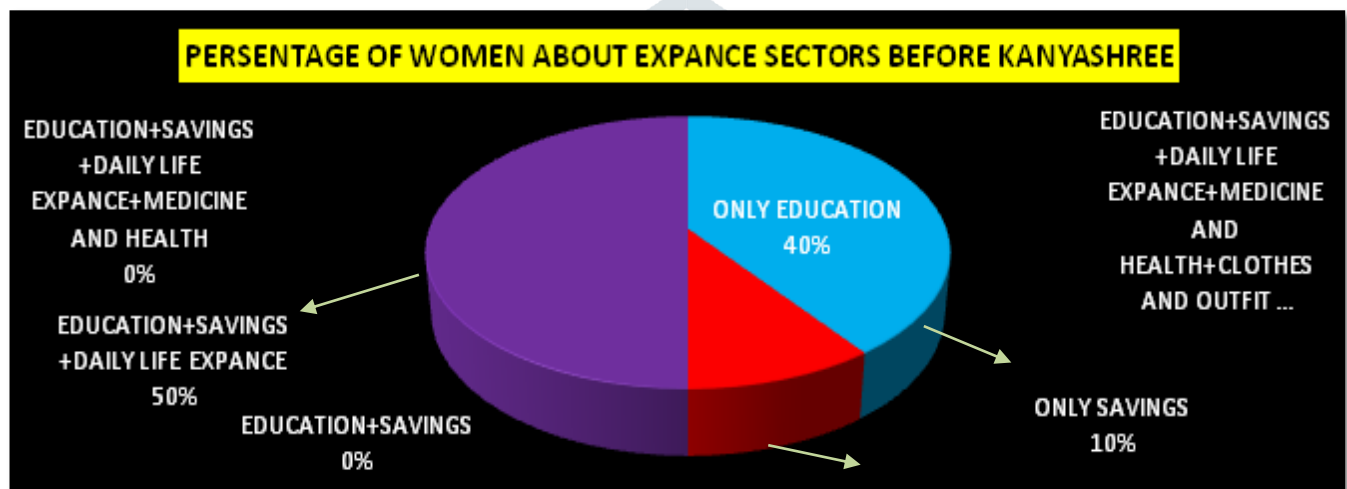
Hon'ble Finance Minister, in the Budget speech of 2015-2016, announced the scheme for distribution of bi-cycles to estimated 40 lakh students of class IX to XII studying in Govt. run and Govt. aided Schools and Madrashes of the State. It was further announced that around 25 lakh students would be covered in 2015-16 thereafter 15 lakh in the next fiscal. Benefitted male students are 43% and female students are 57%. This is very much important for accessibility of school from their home smoothly and easily.



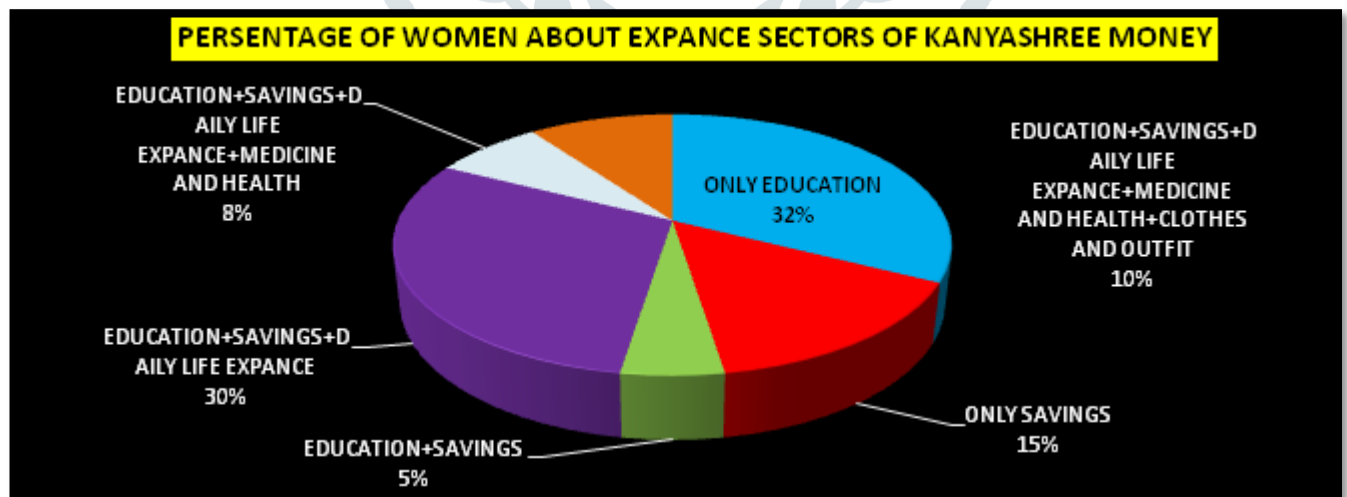
(Sabooj sathi project program arrangement)

Kanyashree prakalpa:

Kanyashree prakalpa helps those girls who are from poor families and can't take higher education due to poverty. It helps them to get secondary and higher education not only education, it gives them a sustainable life, self confident to achieve their goals. The main goal of this prakalpa is stopping the marriage before 18 years for girls. The Hon'ble chief minister of W.B, Mamata Banerjee lunched this scheme on 1st oct, 2013. The basic objectives of this paper are examine how the money received from this scheme on early marriage and study the impact of Kanyashree project on higher education; and also assessment of different aspects of Kanyashree. Before Kanyashree project 40% income are used only for education that is very minimum for progress of female education. Most of the incomes are mainly used for their livelihood pattern as well as savings and others.



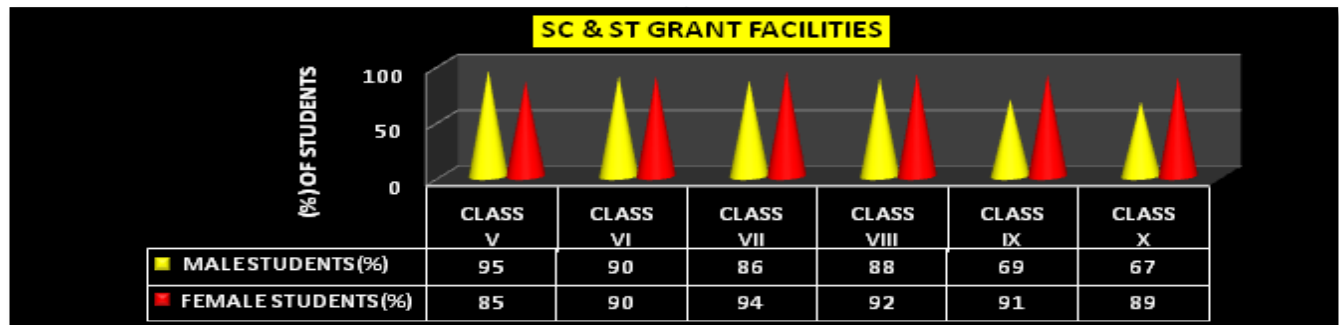
After Kanyashree, incomes are distributed in mainly education that is 85% this money are spend in different purpose likes health, medicine and daily life expand, clothes and outfits etc.



So this is very interesting result of survey for multipurpose dimension of this project with the main focuses for attention to the education.

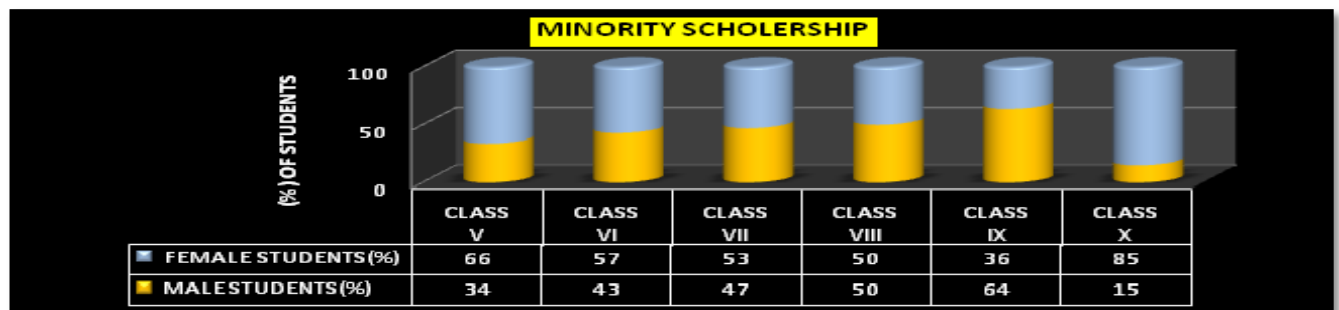
SC & ST grant:

This grant is mainly used for backwards students. It helps to uplifts the student socially through academic progress. By the class wise distribution of the grants in the Hooghly districts female student statistics are much higher than the male students. In the case of male students, benefitted students are highest in class –V (95%) and it is minimum for class-X (66%). But in case of female students class (VII) students are benefitted maximum (94%) and class (V) students benefitted minimum (85%) and class (V) students minimum (85%). These special variation indicates from class (V) to (VIII), this scheme are successful than the class (IX) and (X).It is due to different factors like inefficiency of school authority, parents lack of consciousness, illiteracy, of parents, long time absence in the class, problem related to banking services, communication problem and so on.



Minority Scholarship:

Considering minority scholarship diagram implies that female minority students are much benefitted from class (V) to (X), than male students. In case of female students, class (X) students are benefitted maximum (85%) and it is minimum for class (IX) (36%). But in case of male students class (IX) students are benefitted maximum (64%) but class (X) students are less benefitted (15%). This performances graph indicates the distribution of minority scholarships class wise and their unequal distribution due to different factors like communication problem of school authority; students lack of consciousness or knowledge , parents illiteracy, higher authority communication problem, dropout, long time absence in the class, child marriage in case of female students so on. 57% female students are benefitted from this program and this is 43% for male students. So, female students are benefitted much higher than male students. So, this is very much successful project for female students of Hooghly districts. It indicates participation of female students are much higher for school education.



Problems:

Important problems which have identified from this as follows:

1. Academic performance of this district are higher than the other districts but 100% performance are not considerate.
2. Teaching staff are sufficient but non-teaching staff problems are acute of all of the institution. Percentage of female teacher is relatively much lower than male teacher.
3. Percentage of attendance of female students are relatively less than male students.
4. Percentage of girls school are very minimum, so therefore spreading of girls school are important necessary steps for advantage of female students because in rural area some conservation families are not wishing to admit their female child in co-ed school due to their backwardness in literacy.
5. Multistoried building reflex development of school infrastructure but some remote areas where up-gradation of buildings are necessary for increasing infrastructure.
6. Application of smart-class and digital performance are depressed due to traditional view, lack of consciousness, problems of funds, rural surroundings etc.
7. Infrastructure of solar project, CCTV, biometry facility, save drinking water project, are started but not in satisfied level.
8. Students are not conscious their surroundings environment mainly ecological balanced, so therefore environment related program like water crises, tree plantation are undertaken to awareness about the situation.
9. Classroom discipline are affected due to non-maintaining of diary.
10. Students are involved in electronic devices for academic studies. But some students are not properly maintaining their academic performance due to over use of electronic devices.
11. Mid-day-mill facility was functioning properly but improvement of dining hall and quality of goods are not properly maintained.
12. Students are not causes about their health-cards facilities due to lack of consciousness of parents and students and their surroundings.
13. Sports infrastructure are not utilized all of the institution like gym, playground etc. They are demoralized from their sports facilities and involvement in unsocial activities.

14. Sobooj sathi program are involve in most of the student but some remote areas where this program are also affected by unprocessed stages.
15. Sc & St grants are occupied by most of the students but some students are not benefitted due to problem in school administration and improper communication.
16. Minority students are universal but in some places these are imbalanced of both male and female students.

Conclusion:

Universalizing secondary education critically depends on removing bottlenecks like improving the efficiency of elementary education, recruiting teachers in adequate number and training them appropriately, curricular diversification and up-gradation, quality assurance and sustaining and utilizing higher allocation and evolving transparent regulatory framework for private sector participation.

Acknowledgement:

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