

Education and Infrastructure Facilities: A Study of Devi Sahai S. D. Senior Secondary School, Jalandhar (Punjab)

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Abstract: The growth and development of any nation is dependent on the education system. The education system depends on quality infrastructure, teaching and students' satisfaction. One of the sustainable development goals i.e. quality education is also linked with the educational infrastructure. Therefore, the present study aims to evaluate the availability of educational infrastructure and to examine the perception of students about the available educational infrastructure & facilities. The study used both primary and secondary sources. The primary data was collected by field survey, secondary data was collected from journal articles, reports etc. The data was analyzed with the help of simple statistical techniques. It was found that the infrastructure was up to mark and students were satisfied with available facilities.

Keyword: Education, Infrastructure, classroom, satisfaction, Jalandhar

1. Introduction:

Education is one of the basic and prime necessity of people, which changes the whole life of human being. It is one of most crucial factor which affect the development of any country. Even, the sustainable development goals (SDGs) are not properly achieved by the country without the education (**Singh and Kumar, 2017**). It plays a decisive role in the overall development of society. It improves the personal capability of individual by increasing their productivity and through the technical advancement. According to World Bank, education is the fundamental right of every citizen both for personal and country's development in economic as well as social domain. However, the growth and development of education depends on the availability of infrastructure and the surrounding environment (**Alimi, 2004**).

Education is an approach of learning, teaching and sharing information. It is now most widely mistaken or replaced by formal schooling: one of the many way of acquiring and dispensing information and knowledge (**Sanhey et al., 2008**). Education can be dispensed in many ways

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visually formal and informal. Education is more centered towards two things: learning and teaching. Learning is a complex phenomenon of acquiring data, information, or knowledge which benefits the individual in his survival i.e. directly or indirectly (**Cash, 1993**). The learning process is more centered on sensory perceptions of and cognitive acquirement of several of information, for instance, hearing seeing, touching, tasting and smelling can contribute to the acquirement of differing types of information (**Auvray and Spence, 2008**). An individual had been learning all his life since childhood: consciously or unconsciously which contradicts our orthodoxical definition of education that pertains to attending certain schools or universities. In fact, there has been found a sustainable knowledge economy in the indigenous communities; peoples whose current skills and information on various species of flora and fauna, cultivating techniques are marvelous considering their way of life being so harmonious with nature.

The education system leads to growth of country, as it is a fusion of science and technology. To sustain the level of education, a massive investment has been done by India for providing a better educational infrastructure (**Mokaya, 2013**). The educational infrastructure is not only limited to teacher education, inspection system, examination. However, Infrastructure here means the facilities that compulsory to aid students in their teaching-learning process. These infrastructures may include but are not limited to: good housing to accommodate students, drinking water, food stalls, electricity, Internet, transportation, health facilities, library, etc. These facilities create an ideal environment (in formal schooling system) to enhance the learning process of students. The availability of educational infrastructure plays a crucial role in the shaping of student's personality and future (**Akash, 2018**). The educational infrastructure is similar to experience of teachers. As teacher's experience plays a decisive role in the framing of student's academic lives. It is just like a common system which provide a conducive environment for the student's growth and learning (**Hanafi et al., 2010**).

A study by **Bhunja et al (2012)**, concentrated on the assessment of infrastructure facilities at primary and upper primary level. The investment in the infrastructure facilities at primary level is more productive as compare to other level. The country's growth and development both in term of economic and social is affected by the educational infrastructure facilities. Hence, there is need to concentrate on providing essential infrastructure facilities at school level. Therefore, the present study has been concentrated on the infrastructure facilities

available at the primary school level. The study mainly focused on assessment of available infrastructure facilities and the perception of students about the available infrastructure facilities in the school.

2. Review of literature:-

The infrastructure facilities plays an effective role in term of well education systems. A study by **Kaur and Bhalla (2015)** investigated that education environment, academic facilities and students support services affects student's perception towards the higher education quality. The availability of basic infrastructure facilities like projector, black board/white board, chalk/marker and setting arrangement affect the students and teacher's learning process (**Omae et al., 2017**). Another study by **Singh and Kumar (2017)** explored a positive co-relation between the understanding level of students and available physical infrastructure system. **Agrawal (2014)** also examined the inequality of education system in rural and urban areas mainly concentrated on the infrastructure facilities. **Lahon (2015)** makes analysis that due to lack of basic infrastructure facilities (clean drinking water, bench, proper ventilation, open spaces, computer lab and library etc.) shifted from government to private school. The lack of basic assistance facilities also affect the teaching learning practices. Besides the basic infrastructure facilities, there is also need to focus on smarter infrastructure systems that includes software learning, visual analytics skill and understanding the social issue through technology (**Williamson, 2018**). The study mainly concentrated on to find out hidden architecture through the advance technology. Another study by **Breton (2014)** examined that the size of classroom and strength of students also affect the learning process of students. The examined that the performance of students in test score is declined to about 80 points after increasing the class strength from 20 to 53 students. **Glewwe and Muralidharan (2016)** focused on the education outcome. The authors stress on the improvement of education outcome through focusing on effective strategies. The study expressed that there is need to focus on more cost effective ways for achieving the better education outcome. **Flores et al (2017)**, in article examined the infrastructure related to information and communication technology were existed at a school level. However, it was rarely or at very low level used for class communication and teaching purposes. The results of study expressed that there was need to train the teachers and academic staffs to ensure the use of ICT in classrooms. **Kumar et al (2008)** in article concentrated on the central and state

government have financed education. India has a large school going population it requires strong educational infrastructure in order to keep develop economy and provide it with quality. The government has to strengthen the extent resources and also explore the feasibility of alternate sources of financing education. The authors examined the contribution of government to providing financial aids for the better educational infrastructure has varied from year to year. **Aithal and Aithal (2019)** make an analysis about the National Education Policy 2019 and their linking with 4th sustainable development goal to provide quality education to all citizens of India. The authors concentrated that there is need to change the formal education to technical education.

3. Material and methods:

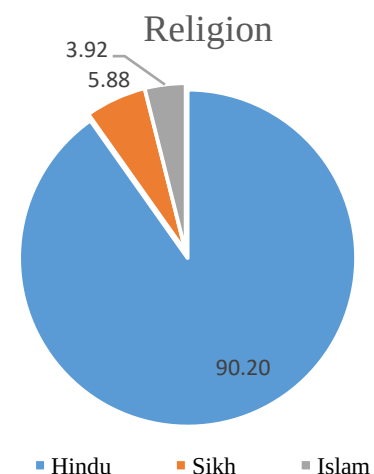
3.1 Study Area: The Devi Sahai S. D. senior secondary school located in west block of Jalandhar city that lies in Central Punjab. It is private aided school, which was established in 1942. In terms of Geographical location, it lies between 31.18° N to 31.19° N latitudes and 75.31° E to 75.37° E Longitude.

3.2 Data source: The data for the research has been both collected through the primary and secondary sources. The secondary data has been collected from various journal articles, newspaper and reports. Apart from secondary sources, a survey has been carried out in Devi Sahai S. D. senior secondary school, Jalandhar for the collection of the primary data. The data has been collected through the Interview schedule from 11th and 12th standard students. The data for the study was collected by conducting field survey in October 2019. The questionnaire was prepared in English language but interaction with the respondents was done in the local 'Punjabi' language. The random sample techniques were used for the selection of numbers of respondents for the study. Finally, total 130 respondents were selected for the collection of data related to infrastructure facilities.

4. Data analysis and interpretation:

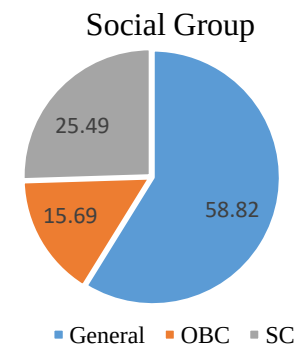
4.1 Socio-economic profile of respondent:

Religion: The religion is a set of philosophies concerning

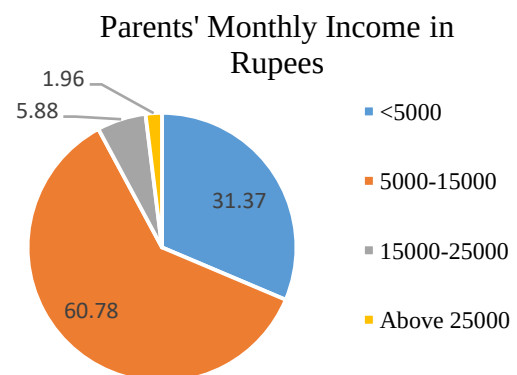


the foundation, commitment or devotion to religious belief or adherence. From the results, it was analyzed that 90 percent respondent belong to Hinduism religion. Whereas 3 percent student were belong to Sikhism and 4 percent were to Muslim community.

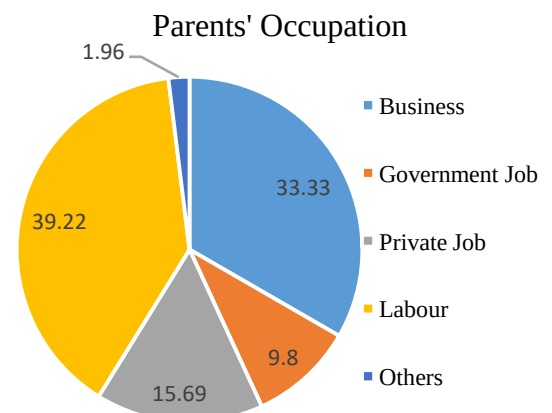
Social group: The social group is the other major indicator which affect the enrollment of students in the school. From the results, it has been revealed that 58.82 percent students were belong to general caste, 15.64 percent belong to OBC, and 25.49 percent belong to SC.



Parents' Income: The results revealed that most of respondents belong to poor and middle class. The results revealed that about 31.37 percent respondents parent earned less than 5000 rupees per month, 60.78 percent earned between 5000-15000, 5.88 percent earned 15000-25000 and only 1.96 percent earned above 25000 per month. Thus, the reveals that most of respondent belong to middle and poor families and were enrolled in public school. Because due to less income, respondent's parent not bear the high cost of private school.

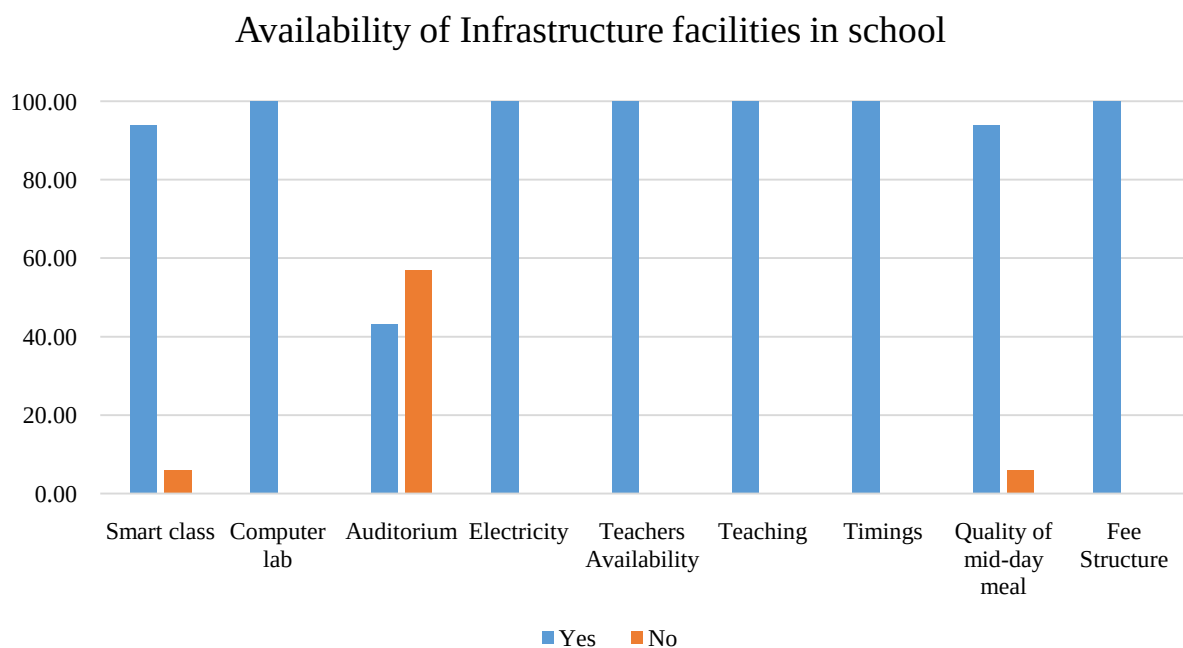


Parents' Occupation: The results revealed that majority of children parents occupation is labor i.e. 39.22 percent. The 33.33 respondents' parent earned their income through the secondary activities and engaged mostly in small scale business activities like shops, carpenters, weaver etc. The 15.29 percent respondents' parent were worked as private job such as security guards, salesmen's, drivers etc. The 9.8 percent respondents' parent were



worked as government employ and the remaining 1.96 percent respondents' parents earned their income through other economic activities such as street vendor, auto driver etc.

4.2 Availability of infrastructure facilities in school: The results of available infrastructure facilities shows in below table. About 94 percent student's response that smart class was available in the school. Whereas, 5.88 percent student's response that smart classroom was not available in school. However, during survey, it was observed that smart class is not available in each classroom. In the context of availability of computer lab, 100 percent student response that computer lab exist in the school. About 43 percent have auditorium facilities and 57 percent saying no for this facility. The infrastructure facilities in terms of electricity, availability of teachers, teaching and timings are all good as 100% students are sayings yes to these one. On the other hand, in term of availability of mid-day meal, 94 percent say good food quality provided by school, whereas 6 percent says that not good quality of food.



4.3 Perception of respondent about infrastructure facilities:

The below table reveals the perception of respondents about the available infrastructure facilities in the school. The perception of respondents has been analyzed through the knowing their satisfaction level. The results reveals about 72.55 percent respondents are satisfied with the facility of smart of classroom. Whereas, 27.45 percent areas average satisfied with that facilities.

In term of computer lab, about 58.82 percent respondents were satisfied, 27.45 percent were average satisfied and 9.80 percent were not satisfied with facility of computer lab in the school. Similar, in the case of auditorium about 72.55 percent respondent were satisfied and 27.45 percent were average satisfied.

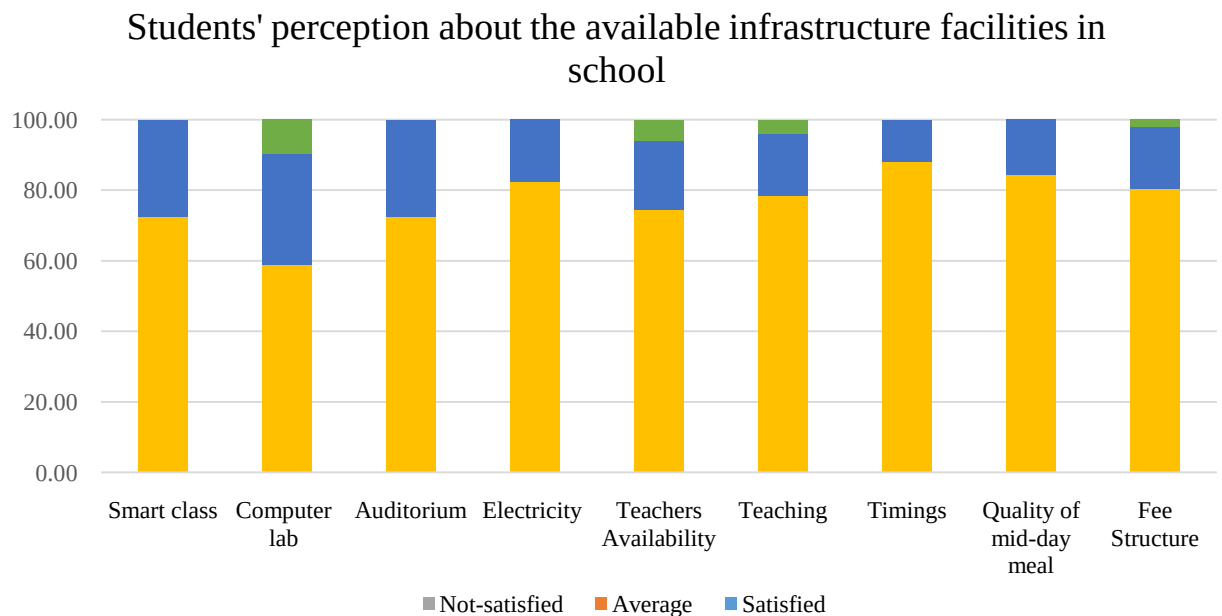


Table 4.1: Perception about available Infrastructure facilities among the school students in Jalandhar

Infrastructures facilities	Mean	Standard Deviation
Smart class	1.25	0.06
Computer lab	1.51	0.09
Auditorium	1.27	0.06
Electricity	1.18	0.05
Teacher Availability	1.31	0.08
Teaching	1.25	0.07
Timings	1.12	0.05
Quality of Meals	1.16	0.05
Fee structure	1.22	0.06

To know the perception of respondents about the available infrastructure facilities the three point likert scale has been used. The response of respondents were stored in the form of Satisfy =1, Average =2 and Not satisfied =3. To know the perception of respondents, mean as well as standard deviation is calculated for the data (Table 4.1).

The results shows that mean values lies from 1.12 to 1.51, means most of students were satisfied with the available infrastructure facilities. The values of standard deviation has been ranged from 0.05 to 0.09, means that there were very less variation in data. However, during field survey, it was observed that smart classes not existed in all classroom.

Conclusion: The study conclude that there were both tradition and modern methods adopted by the school management for the better understanding. The most of basic infrastructure facilities like building, toilet facilities, spaced room, computer lab and library were existed in the school. The most of enrolled students were belong to poor and middle class families and their parent were earned their income through the primary and secondary activities. The study showed that most of students were more satisfied with the available infrastructure and adoption of mixed methods for education system in the school.

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