

**TURN AROUND OF DELHI GOVERNMENT SCHOOLS:  
CHALLENGES, PROSPECTS AND WAY AHEAD**

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Rajeev Garg

## DECLARATION

I hereby declare that the work presented in this thesis titled "*TURN AROUND OF DELHI GOVERNMENT SCHOOLS*" is submitted for the purpose of Master of Philosophy in Social Sciences in partial fulfillment of the requirement for the Advanced Professional Programme In Public Administration (APPPA). The work has been carried out under the guidance and supervision of Dr. Neetu Jain. This work has not been submitted to any other university for the award of Degree, Diploma or Certificate, in part or full.

Date :

RAJEEV GARG, IDSE

Place : New Delhi

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## LIST OF ABBREVIATIONS

AWP&B	:	Annual Work Plan and Budget
ASER	:	Annual Survey of Education
BE	:	Budget Estimates
CABE	:	Central Advisory Board of Education
CBSE	:	Central Board of Secondary Education
CISCE	:	Council of Indian Schools for Certificate Examination.
CTE	:	College of Teacher Education
CTET	:	Common Teacher Eligibility Test
DSSSB	:	Delhi Subordinate Staff Selection Board
DIET	:	District Institute of Education and Training
DISE	:	District Information System for Education
DoE	:	Department of Education
DRG	:	District Resource Group
EMC	:	Entrepreneurship Mindset Curriculum
GER	:	Gross Enrolment Ratio
GoI	:	Government of India
IASE	:	Institute for Advanced Studies in Education
ICT	:	Information Communication Technology
IEDSS	:	Integrated Education of the Disabled at Secondary Stage
IT	:	Information Technology
JRM	:	Joint Review Mission
KRP	:	Key Resource Person
MHRD	:	Ministry of Human Resource Development
MI	:	Monitoring Institution
MIS	:	Management Information System
NAS	:	National Achievement Survey
NCERT	:	National Council of Educational Research & Training
NCF	:	National Curriculum Framework
NCTE	:	National Council for Teachers Education
NIOS	:	National Institute of Open Schooling

NLAS	:	National Learning Achievement Survey
NPE	:	National Policy of Education
NUEPA	:	National University of Educational Planning & Administration
PAB	:	Project Approval Board
PGT	:	Post Graduate Teacher
PoA	:	Programme of Action
PTA	:	Parent Teacher Association
PTR	:	Pupil Teacher Ratio
QMT	:	Quality Monitoring Tool
RMSA	:	Rashtriya Madhyamik Shiksha Abhiyan
RP	:	Resource Person
RTE	:	Right to Education
SCERT	:	State Council for Educational Research and Training
SDP	:	School Development Plan
SEMIS	:	Secondary Education Management Information System
SES	:	Selected Educational Statistics
SMC	:	School Management Committees
NPSSE	:	National Programme on School Standards Evaluation
SLAS	:	State Level Achievement Survey
SIP	:	School Improvement Plan
SIS	:	State Implementation Society
SMC	:	School Management Committee
SMDC	:	School Management and Development Committee
SSA	:	Sarva Shiksha Abhiyan; Smagra Shiksha Abhiyan
TCA	:	Technical Co-operation Agency
TCF	:	Technical Cooperation Fund
TE	:	Teacher Education
TET	:	Teacher Eligibility Test
TGT	:	Trained Graduate Teacher
TLE	:	Teacher Learning Equipment
TLM	:	Teaching Learning Material
TOR	:	Terms of Reference



TSC	:	Total Sanitation Campaign
TSG	:	Technical Support Group
UEE	:	Universal Elementary Education
UDISE	:	Unified District Information System for Education
UNDP	:	United Nations Development Programme
UPS	:	Upper Primary School
VE	:	Vocational Education
YUVA-SLP Programme	:	Youth United for Victory on AIDS-School Life Skills

**Chapter 1**  
**INTRODUCTION**

*“Education is the most powerful weapon to change the world”*

**- Nelson Mandela**

“Education plays as important role in the progress of an individual’s mind and country. People are made aware of what is going on in the world and can understand these issues and take necessary measures if they are educated. Education tames the asking mind, nurturing its capabilities the same way training builds a clever dog”.<sup>1</sup>

Education is the process of facilitating learning or the acquisition of knowledge, skills and values. Education generally takes place under the guidance of qualified educators by methods of teaching, training, story telling, discussion or direct research. The methodology of imparting knowledge to learners is called pedagogy.

In today’s competitive world, it is necessary for young citizens to have good education and skills. Proper education creates awareness for these young citizens in the future. Each and every one has their own dreams of doing something different in the life. Sometimes parents dreams for their kids to become a doctor, engineer, IAS officer, PCS officer or pursue other ambitious careers. There is only one way to fulfill all these dreams, which is education.

### **1.1. EDUCATION SYSTEM IN INDIA**

In ancient lines, India had the Gurukul system of education wherein anyone wishing to study used to go to the teacher’s (Guru’s) home and requested to be taught, if

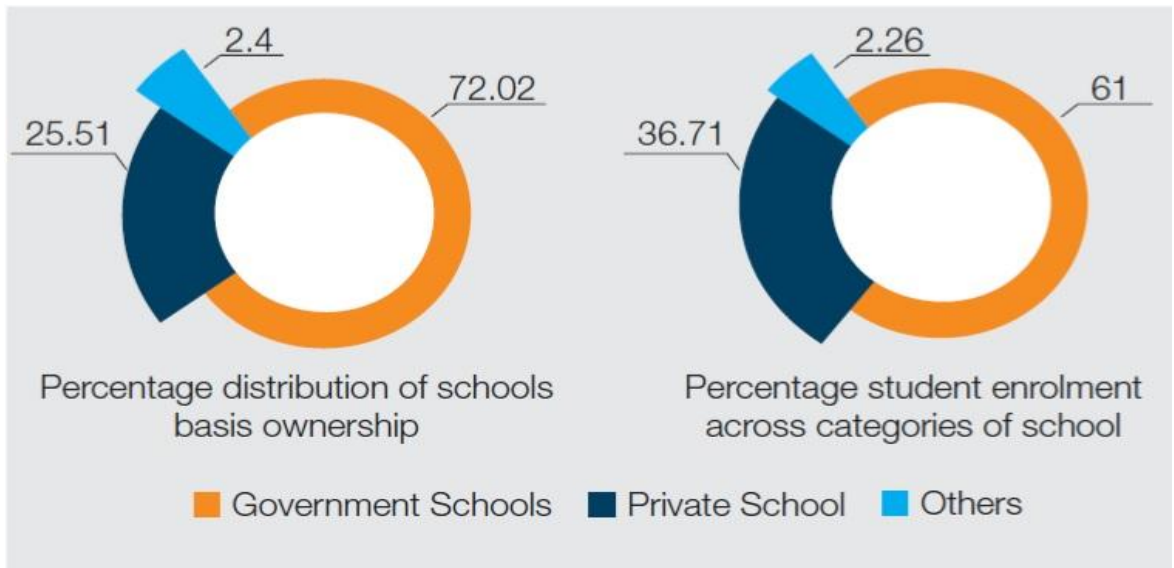
accepted as a student by the Guru, he would then stay at the Guru's place and help in all activities at home. This not only created a strong tie between guru and shishya, but also taught the student everything, he knew, to child, from holy scriptures to mathematics. The students stayed as long as he wished or until the guru felt that he had taught everything, he knew, to shishya.

The modern school system was brought to India by Lord Thomas Macaulay in the 1830s. The curriculum was confined to modern subject such as science and mathematics. The subject like metaphysics and philosophy were considered unnecessary. Teaching was confined to classrooms and the link with nature was broken as also the close relationship between the teacher and the student.

The Uttar Pradesh Board of High School and Intermediate Education was the first board set up in India in the year 1921 work jurisdiction over Rajputana, Central India and Gwalior. Later more Boards were established in some other states but eventually in 1952, all schools in Delhi and some other regions were brought under Central Board of Secondary Education (CBSE). Function of CBSE was to decide curriculum, textbooks and examination system for all schools affiliated to it. Today there are thousands of schools affiliated to Board, both within India and many other countries from Indonesia to Zimbabwe. (220 schools in 28 foreign countries)

## **1.2. SCHOOLS IN INDIA**

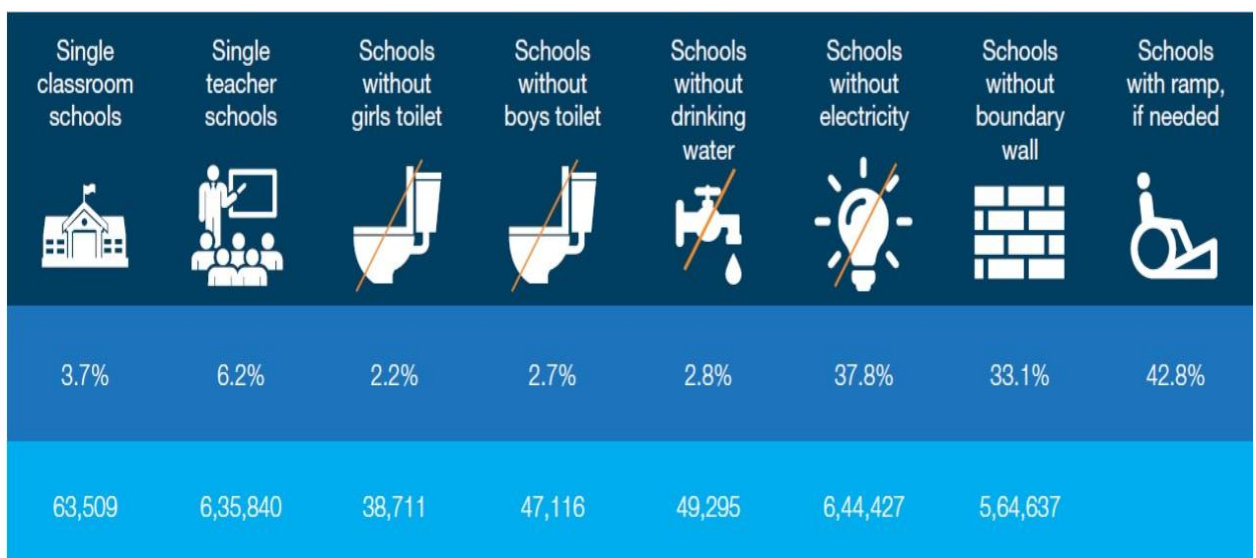
India has one of the largest and diverse school education systems in the world. India has more than 1.7 million schools, approx 10 million teachers and 260+ million students across both government and private school systems. The distribution of number of school and enrolment across government (including government aided schools), private and others (minority religion schools) is shown below.



**Figure 1.1 school system in India<sup>2</sup>**

From above figure it comes out that though private schools capture a significant share of education sector but the sheer volume of government schools enables them to dominate the education scenario of country.

There is significant gap among the schools on the basis of resources such as infrastructure, teachers and funds available. A glimpse of the existing conditions of the schools with respect to basic amenities highlights the lack of basic safety conditions available in schools and the scale of the problem



**Figure 1.2 Basic amenities available at school<sup>3</sup>**

### **1.3. DEVELOPMENT IN EDUCATION SYSTEM IN INDIA**

*“Today’s youth wants to be job creators and not job seekers”*

- Shri Narendra Damodardas Modi, PM

The education system in India has four levels: lower primary (age 6 to 10), upper primary (age 11 and 12), high school (13 to 15) and higher secondary (17 and 18). The lower primary school is divided into five ‘standards’, upper primary school into two, high school into three and higher secondary upto two. Students have to learn a common curriculum largely (except for regional changes in mother tongue) till the end of high school. There is some amount of specialization possible at the higher secondary level. Students throughout the country have to learn three languages (namely English, Hindi and their mother tongue) except in regions where Hindi is mother tongue.

Universal and compulsory education for all children in the age group of 6-14 was a cherished dream of the new government of the Republic of India after freedom. This is evident from the fact that education was incorporated as a directive policy in article 45 of the constitution. Kothari commission was setup in 1964 to suggest reforms and review education system in India. Based on its recommendations, First National Policy of Education (NPE) was announced in 1968. The Policy envisaged uniform compulsory education for all children upto the age of 14yrs and better training and qualification of teachers. It introduced three language formula to reduce the gulf between intelligentsia and the masses. The NPE of 1968 called for education spendig to increase to 6% of the national income.

As per the constitution of India, school education was originally a state subject that is, the states had complete authority on deciding policies and implementing them. The

role of Government of India (GoI) was limited to coordination and deciding on the standards. This was changed with a constitutional amendment in 1976 and education was brought under concurrent list that means school education policies and programmes are suggested at the national level by the Government of India (GoI), though the state governments have a lot of freedom in implementing these programmes. Policies are announced at the national level periodically. The Central Advisory Board of Education (CABE), setup in 1935, continues to play a lead role in the evolution and monitoring of educational policies and programmes.

#### **1.4. NATIONAL POLICY ON EDUCATION 1986**

First National Policy on Education (NPE) 1968 was followed by National Policy on Education (NPE) 1986, Programme of Action (PoA) 1986 and a revised NPE and PoA (1992). NPE 1986 & PoA 1992 envisaged that free and compulsory education of satisfactory quality should be provided to all children upto the age of 14 years before the commencement of 21st century (SSA). As per the commitment of the Government about 6% of the Gross Domestic Product (GDP) was supposed to be earmarked for education sector by 2000 AD.

A National Programme of Nutritional support to primary education commonly called the Midday Meal Scheme was launched on 15th August, 1999 in order to improve enrolment, attendance and retention while simultaneously impacting on the nutrition status of students in primary classes. The programme envisages provision of cooked meals/processed food for children studying in class I-V in all government, local body and government aided primary schools.

NPE 1986 also envisaged centrally sponsored scheme of restructuring and reorganization of teacher education. The scheme planned setting up of District

Institute of Education and Training (DIET) in each district to provide academic and resource support to elementary education Teachers and Non-formal education (NFE), Adult Education (AE) instructors. It also envisaged upgradation of selected Secondary Teacher Education Institutions (STEIs) into Colleges of Teacher Educations (CTEs) and Institute of Advance Studies in Education (IASEs) to organize pre-service and in-service training for secondary teachers. National Council for Teachers Education (NCTE) has been established as a national level statutory body of GoI in 1995.

The NPE, 1986 advocated a systematic, well-planned programme of vocational education which would be a distinct stream intended to prepare students for identified occupations. It envisaged that vocational courses would ordinarily be provided at the higher secondary (+2) stage but flexibility was provided to start vocational education after class VIII. The NPE, 1986 set a target to cover 10% of higher secondary students under vocational courses by 1990 and 25% by 1995. However the NPE as revised in 1992 aimed at induction of 10% of the students at the +2 level to the vocational stream in 1995 and 25% by 2000 AD. Accordingly, a centrally sponsored scheme of vocationalisation of secondary education was launched in Feb, 1998. Under the scheme, substantial financial assistance is provided to state /UTs for introduction of vocational course in the class XI and XII of the school.

As an intervention programme, Government of India (GoI) started Sarva Shiksha Abhiyan (Education for All Movement), or SSA, in 2002, as an Indian Government programme aimed at the universalisation of primary education "in a time bound manner", through 86th Amendment to the Constitution of India, making free and compulsory education to children between the ages of 6 to 14 (estimated to be 205 million children in 2001) a fundamental right (Article- 21A). The programme was

pioneered by former Indian Prime Minister Atal Bihari Vajpayee. It aimed to educate all children between the ages 6 to 14 by 2010.

The Sarva Shiksha Abhiyan (SSA) initiatives was further strengthened by passage of the Right of Children to free and compulsory education (RTE) Act 2009 which gave a legal mandate to provide free and compulsory elementary education to every child in the age of 6-14 years. GoI launched Rashtriya Madhyamik Shiksha Abhiyan (RMSA), in March, 2009 with the objective to enhance access to secondary education and to improve its quality. It envisaged to improve quality of education imparted at secondary level through making all secondary schools conform to prescribed norms, removing gender, socio-economic and disability barriers, providing universal access to secondary level education by 2017 and universal retention by 2020.

The important physical facilities provided under the scheme apart from sanctioning new schools were (i) Additional class rooms, (ii) Laboratories, (iii) Libraries, (iv) Art and Craft rooms, (v) Toilet blocks, (vi) Drinking water provisions, (vii) Residential hostels for Teachers in Remote Area, (viii) Integrated Maths and Science labs including Maths and Science kits; and (ix) sports equipments etc.

The important quality intervention under the scheme were, (i) Appointment of additional teacher to reduce PTR to 30:1, (ii) Focus on Science, Maths and English education, (iii) In-service learning of teachers, (iv) ICT enabled education.

The Union Budget 2018-19 proposed to treat school education holistically without segmentation from pre nursery to class 12 under programme, **Samagra Shiksha**. Samagra Siksha Abhiyan, an over reaching programme for the school education sector extending from preschool to class 12, has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for



schooling and equitable learning outcomes. It subsumes the three flagship schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE) into itself.

## **1.5. DELHI GOVERNMENT INITIATIVES**

The success story of turning around of Delhi government schools from laggards schools to leaders schools has attracted large media headlines in last couple of years.

In 2019 CBSE exam, Delhi government schools improved their pass percentage to 94.24% , 3.5% higher than the private schools. The Delhi government increased educational budget from 23.8% of the total budget in 2015-16 to 26% of the total budget in 2019-20. The educationally backward states of Uttar Pradesh, Bihar and Rajasthan allocate a mere 10.9% for education. In other terms, Delhi government's education outlay per child is Rs. 51,745/- vis a vis national average of Rs. 13,974/-.

### **Infrastructure Push**

Delhi government has laid quite emphasis on improvement of government schools infrastructures. It has constructed 8,213 new fully wired class-rooms in its 1028 state government schools with another 12,748 classrooms nearing completion 8000 classrooms are equipped with the modern learning aids and facilities, high priority has been laid to repairing existing buildings along with construction of 21 new school buildings. Moreover, schools principals has been empowered to have estate managers, security guards and outsource the work of maintaining toilets and hygiene to professional agencies.

### **Teacher Training and Development**

On average, the 58000 teachers employed in the Delhi's 1028 state government schools receive 5-11 days of in service training and development per year. Moreover,

state government has devised a programme of selecting 200 innovative teachers as mentor teachers. All 200 mentor teachers attend a five training programme at National Institute of Education, Singapore to acquaint themselves with new pedagogies and enhance their teaching skills. Each mentor teachers in assigned 5-6 schools to interact with principals and teachers to improve their skills. In addition, school principals are being sent in batches to IIM Ahmedabad and lucknow for leadership development programmes in addition to Cambridge University, UK and workshops conducted by education ministry of Finland – a country globally admired for its excellent public education system.

### **Empowering SMCs**

Third major initiatives of Delhi Government has been to resuscitate and empower school management committee mandated by S21 (1) of the RTE Act 2009. Establishment of SMCs comprising elected representatives of the local authority, teachers and parents – with parents to constitute 75 percent of the membership are obligatory for all government schools. Under the Act, the prime duties a school development plan and monitor utilization of government grants. Delhi government has made it compulsory for all its schools to establish SMCs in the interest of promoting school – community linkages.

### **Segregation of Students**

Delhi government has introduced a controversial scheme of dividing students of Class I to VIII in two groups – Pratibha (with reading and math competence) and nishtha (low learning levels). The formers are prepared for CBSE board exam while the latter are encouraged to write the comparatively easy school leaving exam of NIOS (National Institute of Open Schooling). The **National Institute of Open Schooling (NIOS)**, formerly known as National Open School (NOS), was established in

November,1989 as an autonomous organisation in pursuance of National Policy on Education 1986 by the Ministry of Human Resource Development (MHRD), Government of India. NIOS provides a number of Vocational, Life Enrichment and community oriented courses besides General and Academic Courses at Secondary and Senior Secondary level.

In addition to above structural changes, Delhi government has introduced following innovative features in education –

### **Happiness Curriculum**

Happiness Curriculum with objective to help students lead happier lives while making meaningful contributions to their communities by practicing mindfulness and by developing skills likes empathy, critical thinking, problem solving, communication and collaboration to build meaningful relationships.

It was launched in all schools from class nursery to class 8 on July 2, 2018 by 14th Dalai Lama.

There is Happiness period every day and each period begins with a few minutes of mindfulness practices followed by a story or activity and reflective discussion. Each child is given a chance to reflect and express their thoughts about the story or activity.

### **Entrepreneurship Mindset Curriculum**

Delhi Government introduced Entrepreneurship Mindset Curriculum (EMC) in July, 2019 with the aim to instill innovative mindset among students and for enabling them to take their ideas to the next stages while creating future “job providers” in the country.

Under the EMC, each day, students from class 9<sup>th</sup> to 12<sup>th</sup> in 1024 Delhi government schools spend 40 minutes time picking up soft skills such as speaking with

confidence, problem-solving and understanding how business works. While EMC is compulsory, it is a non-graded subject, so students don't face the same performance pressure as in examinations.

Students are promised to be given Rs. 1000 as 'seed money' to enable them to develop their ideas, and will get to keep it if their ideas grow into money making business.

### **Career Counsellors**

The Delhi government has tied up with UNDP (United Nations Development Programme), and the counsellors have been appointed and their training process has also begun. The appointed counsellors will offer one-on-one counselling for all the students, data of which also will be available online and experts will be roped in for the purpose.

The Scheme will be extended to the Netaji Subhash Institute of Technology after the institution will become a state university. There are approx. 4 lakh students who are enrolled in class 10-12 in Delhi Govt. schools. There has been no provision for providing counselling to them so far to inform them about the career choices and about how to deal with the personal problems.

423 counsellors are recruited through Delhi Subordinate Staff Selection Board (DSSSB) to guide class X & XII students towards a gateway for better and focused future prospects aligned with their needs and interest. DoE has started the career guidance & career counselling projects to create awareness among students about career pathways available after class XII.

## **YUVA School Life Skills Programme (SLP)**

Youth United for Victory on AIDS-School Life Skills Programme (YUVA-SLP) was launched by Department of Education, Government of NCT of Delhi along with State Council for Educational Research and Training (SCERT).

This programme utilizes a combination of "Life Skills" that address the important and emerging issues that have an impact on the society and nation, help build student's thinking, social and negotiating skills, learning capacities, personality, effective relationships and promote their health.

## **Spoken English Classes**

Renowned agencies like McMillan Publishers India Pvt. Ltd., British Council India and Academy for computers training (Gujarat) Pvt. Ltd. were selected for this pilot project. Course was offered to 24000 students of class 10. Duration of course is 160 hrs spread over from 23 to 80 days.

## **Schools of Excellence**

5 schools of excellence with English medium were opened from academic session 2018-19 with state of the art infrastructure and employing some of the best teachers of Directorate of Education.

Full time nurses, part time doctors and sports coaches were provided at these schools.

Total 2368 students were enrolled from session 2018-19.

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<sup>1</sup> Quality Council of India, New Delhi. Final report on quality in school education. Accessed August 3, 2019 from <https://www.qcin.org/PDF/Common/Quality-in-School-Education.pdf>

<sup>2</sup> Ficci Arise. Child Safety & security in K-12 schools. Accessed August 10, 2019 from [ficci.in/spdocument/22995/child-safety-&-security-report.pdf](http://ficci.in/spdocument/22995/child-safety-&-security-report.pdf)

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<sup>3</sup> Ficci Arise. Child Safety & security in K-12 schools. Accessed August 10, 2019 from [ficci.in/spdocument/22995/child-safety-&-security-report.pdf](https://ficci.in/spdocument/22995/child-safety-&-security-report.pdf)

## Chapter 2

# LITERATURE REVIEW

Quality in school education and school environment has captivated mind of a number of research scholars, academicians, administrators and journalists throughout the world including India. In recent time after much debate on success of delhi school model, it has rekindled flurry of media reports. Centre, state governments, its ministers are being frequently grilled by opposition, media on the status of quality in school education, especially after any survey results on the issue are released.

The present study has worked on the literature and relevant writings on the subject 'quality and environment in secondary education' in India. Though no specific study was found on improvement of quality and environment of secondary schools under Delhi Government but some related studies were available.

The principal purpose of a literature review is to establish the academic and research areas which are of relevance to the subject of research<sup>4</sup>. The good literature review has a greater purpose than this, it is a source of data in its own right<sup>5</sup>.

The literature review serves three fundamental purposes; First, it shows those who read the research findings that the researcher is aware of the existing work already done on topic. Second, it identifies gaps in the field. Third, it establishes a set of guiding signs that allow readers to see which theories and principles the researcher need to shape the research design and analysis (Denscombe, 2002)<sup>6</sup>.

This chapter presents the review of the related literature for the present study and the interpretation of concept of quality and environment as understood from the available

literature on the subject. The chapter has been arranged in four **sections**, dealing with studies related to the themes as stated below:

- Concept of Quality in Secondary Schools: An Overview
- Studies related to teacher training and its impact on quality education
- Understanding of Quality in education
- Other Studies

## **2.1. CONCEPT OF QUALITY IN SECONDARY SCHOOLS: AN OVERVIEW**

Education which includes outcomes that encompass knowledge, skills and attitudes that are linked to national goals for education and positive participation in society, content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, processes through which trained teachers use child-centered teaching approaches in well managed classrooms and skilful assessment to facilitate learning and reduce disparities, is what defines quality in education, according to UNICEF<sup>7</sup>. This supports the view that there is no single factor but a host of factors that influence the quality of education in schools.

A school is only as good as its teachers, said Weber (1956), in 'An Overview of Secondary Education in India'. Like-wise, the type of training that the teacher has had will be constantly reflected in the quality of teaching and the general progressiveness of the school. He spoke about the outstanding shortages in India in the teaching field and requirement of the shift from the over emphasis on exams to have a promotion based on a wider range rather than just tests. He also commented that the problem was that the focus of secondary school in India has been preparation for higher education rather than for life and spoke of the need for modernizing the



curriculum of teacher training courses.<sup>8</sup> What he said of teacher training in 1956 still holds true now. The pertinent question that we should be asking of the teacher training courses, the content and design of teacher training short term training courses, especially now since they are being widely organized under such government programmes like RMSA and under SSA too. The training colleges have failed to develop techniques and methods that fulfil the needs of the present-day Indian schools and there is still too much emphasis on subject matter and less stress given to technique and purposes. Continuing on the same lines, William Van Til<sup>9</sup> in his work "Crucial issues in Secondary Education" talks about social realities, environment and setting, content, organization, teaching strategies, administering and supervising. He mentions that in the new social reality, with globalization, rapid and fluid changes characterizing the economic landscape, more emphasis will be needed on skills which will help students adapt to a new reality and equip them with the ability for self-discovery and consequent development of a wholesome self-image.

This is the concern that most parents have. Are our children equipped with the skills needed for life out of school? Are our children learning in schools, the knowledge and skills that will help them live useful, productive and successful lives? Isn't it the concern that their children should not be disadvantaged that spurs most parents to send their children to expensive private schools in the pursuit of what is perceived to be better quality education in the private schools would help their children get an advantage in life with the skills and capacities they develop or pick up in a good schooling environment.

Quality has been defined in the Oxford Dictionary as "the standard of something when it is compared to other things like it".<sup>10</sup> Locating the term quality in

educational discourse is a universal concern today. Education of good quality should be available to all, irrespective of whether it is in private schools or government schools.

In the Final Report on 'Quality in School Education', a study conducted by the Institute for Studies in Industrial Development for Quality Council of India on the role played by various School Education boards, the inputs such as curriculum, syllabus, pedagogy, examination and evaluation, accreditation and affiliation were examined and compared. The study also seeks to find good practices in the schools in an attempt to document the practices associated with consistent quality and high performance of schools.

While it is a common practice and an aspiration amongst most parents to ensure their children get quality education, it is a general expectation that education of good quality should be available to all. This report reiterates that "the belief that quality goes with privilege is clearly irreconcilable with vision of participatory democracy that India upholds and practises in the political sphere. Thus, its practice in the sphere of education demands that the education available to all children in different regions and sections of society has a comparable quality".<sup>11</sup> This report includes a comparative study of four education Boards in India - CBSE, CISCE, Delhi Government Schools and IBO taking into consideration broad aspects such as curriculum, syllabus, pedagogy, examination and evaluation, accreditation and affiliation and to find out some of the good practices in the schools. The study highlights the differences in the curriculum, syllabus, and pedagogy in these schools and how the affiliating bodies carry out inspection, the kinds of evaluation and examination patterns that are used and conducted by affiliating bodies and their actual operational status in these schools. The report lists some good practices in

each of these categories of schools and a comparative assessment as well as the measure of the quality percentage achievement of studied schools on the basis of quality indicators.<sup>12</sup>

The importance of good teacher training has also been explicitly stated in the National Policy on Education. 'The National Policy on Education (NPE), 1986 revised in 1992 (along with the Programme of Action), reiterated the urgency to address the quality concerns in school education on priority basis. Quality cannot improve by itself. It requires reforms in teacher training; improvements in the facilities and infrastructure in schools; teachers' motivation; and a change in the style of teaching to make it attractive to the students. However, in actual practice, there has always been a trade-off between quality and quantity, in favour of the latter. This not only affected the internal efficiency of the educational system but also resulted in a situation where only a few graduates of the school and higher education system could attain the expected skills and competencies', as mentioned by Prasanthi Kokkeragadda in 'Quality in School Education: Conceptual Understanding'.<sup>13</sup>

Asserting that learning outcomes in schools, especially government schools in India remain poor and that there is a need to focus and devote more resources and energies on improving quality, ASER's report 'Middle Schools in India: Access and Quality' sought to generate new evidence regarding access and quality of post primary education in India and questions if our educational policy is equipped to cope with the realities of adolescent children and their context. The opinion was held out that policy making and planning should be informed by an in-depth stock taking exercise that reviews where we are today and identifies key challenges that need to be addressed if quality secondary education for all is to be achieved. It is

true that for a number of years, the primary thrust of education policy in India has been on achieving universal access and retention at the elementary level. According to the Annual Status of Education Report (ASER 2014)<sup>14</sup>, the percentage of in-school children in the age group of 6-14 is over 96 percent. Further, under the Right of Children to Free and Compulsory Education Act, 2009 (RTE), all children in this age group are now guaranteed education until grade 8.

Important questions are still pressing with regard to access to as well as quality and relevance of the education children receive at the post primary level. The available evidence on learning outcomes indicates that while school enrolment has expanded and retention has been ensured at the elementary level, learning levels remain poor.

According to ASER 2014, the proportion of children in rural India in Class Five who can read a Class Two level text is 48.1 percent and only 26.1 percent can solve a 3-digit by 1-digit division problem. In other words, half of the children entering middle schools cannot read a Class Two level text and only one out of four children can solve an arithmetic sum usually taught in Classes 3-4. Other data on learning achievement, from Education Initiatives (EI) or Government of India's own assessments (using different methodologies and indicators) also demonstrate that learning outcomes at the primary stage are far from satisfactory.<sup>15</sup>

It was pointed out that "low-quality education is associated with poor student performance, higher levels of repetition, and increased dropout rates. In particular, when parents are aware their child's school is underperforming, they may prefer to send him or her into the workforce or keep their child at home, as there will be little return on investment".<sup>16</sup> The authors quote Glewwe and Kremer from their paper titled "Schools, Teachers, and Educational Outcomes in Developing

Countries", in which they had reviewed a wide number of retrospective studies measuring the impact of school and teacher characteristics on learning. One interpretation of these results of the review is that in many developing countries, "the most effective means of improving school quality may be through addressing the problem of weak teaching".<sup>17</sup> Quality secondary education has the potential to deliver enormous benefits. Beyond the direct impact of improving the employment prospects of individuals, post primary education can also produce huge gains at the societal level. In addition to improving economic growth and reducing poverty, there exist a raft of positive externalities that come with educational attainment including improved health, lower maternal and child mortality, lower population growth, and increased gender equality (World Bank, 2009).<sup>18</sup>

## **2.2. STUDIES RELATED TO TEACHER TRAINING AND ITS IMPACT ON QUALITY EDUCATION**

Rahman et al (2011) in a study carried out in schools of Islamabad, examined the ways in which teacher training was related to effective teaching in terms of student achievement where the study made a link associating teacher training and effectiveness in classroom situation affecting actual instruction/academic work, classroom management, evaluation procedures, assignments and developing relationships with students, principal, and society in general. The study concluded that teacher training was positively related to effective teaching. The results of the study also indicated that there is a significant co-relation between teachers training and student test result. It was recommended that quality training programs for teachers be introduced as it has significant co-relation with student performance.<sup>19</sup>

According to Deswal (2017) teacher education is the foundation of entire education system.<sup>20</sup> A good education system prepares good citizens according to the need of

the society. The success of the education system depends to a significant extent on the characteristics and ability of the teacher who is the cornerstone of the system of education. Teachers deal with the invaluable raw material of human resources (children) of the nation. If teachers do not possess the capabilities and are unable to fulfill the requirements of teaching-learning process, they cannot contribute to build a good, healthy and constructive society. Therefore, a proper education of teachers is not only essential to improve the quality of school education but is a sine qua non of human development.' She also comments on the defects that ails teacher education not only in Haryana, but also in the whole country.

As per Hisako et al (2017), there is widespread acknowledgement that the quality of teachers is the single-most important determinant of the quality of an education system<sup>21</sup>. They concluded that the present system cares little about quality teacher education, and by implication, quality teachers. Reforming the sector must include curricular changes to strengthen the programme of teacher preparation - a move that has already been initiated by the NCTE and followed by the states.' This study draws attention to the vulnerability of institutions to state action and to the inability of the programme to live up to the student-teachers' and teacher-educators' expectations who were giving it their time and best effort.

### **2.3. UNDERSTANDING OF QUALITY UNDER RASHTRIYA MADHYAMIK SHIKSHA ABHIYAN (RMSA)**

In order to achieve good quality education, it is important that there is a broad agreement on aspirations, processes and outcomes. Traditionally, using test results as a method to judge the quality of education has been common, likely because results are obtainable at a very low cost and satisfy simple notions of 'accountability' and 'performance management'. However, over the past two decades, countries around the

world have been successful in their efforts to improve education by focusing on improving schools. Schools are where the learning happens. A lot of emphasis is also given to learning outcomes.

In 'Secondary Education: Planning and Appraisal Manual', one of the earliest documents developed by NUEPA to help in the planning and implementation of RMSA , factors such as suitable infrastructure, curriculum, learning resources, teachers, academic support, teaching-learning process, monitoring evaluating and supervision, are said to be influencing the quality of secondary education and thus planning for the interventions of the above factors under RMSA should be so that their cumulative effect leads to the quality secondary education.<sup>22</sup>

The Framework for the Implementation of RMSA (MHRD, 2009) cites quality provisions such as (i) infrastructure including Black Board, Furniture, Library Science & Mathematics Laboratories, Computer Labs, Toilets, (ii) appointment of additional teachers and in-service training of teachers, (iii) Bridge courses for enhancing learning ability for students passing out of class VIII, (iv) Reviewing curriculum to meet the NCF 2005 norms as strategies for improvement of quality in secondary schools.<sup>23</sup>

The RMSA framework stresses on provision of required infrastructure - Class rooms according to the recommended classroom-student ratio, Principal's room cum office, library, integrated Science and Mathematics laboratories with Maths and Science kits ,computer labs and instructors, vocational education labs, toilets and drinking water facilities, sports equipment and quality inputs such as providing teachers in all the subjects -- English, Language, Social Science, Mathematics and Science, use of ICTs in teaching and learning, etc.<sup>24</sup>

The component of teacher training, both in-service subject teachers training and induction training for newly appointed secondary school teachers training was provided for and availed of by most of the states, including Haryana, from the start of the programme. The component for training of Head-Masters and Principals in School Leadership and administration was added later on. Remedial courses to identified students were also implemented with the objective of enabling students with learning gaps to bring them to Class 9 readiness level. The RMSA framework also listed review of the curriculum to meet the National Curriculum Framework (NCF 2005) norms as an important activity for quality improvement inputs in RMSA. The states also implemented School Excursions, Science Fairs, Science Exhibition at district level, Self-defence classes for girl students, yoga training as part of the quality interventions which was permitted under the Framework.

The RMSA framework called for reform of the examination system to move away from rote learning, ensure adolescent education programme, school level counselling for secondary school students and sensitization of the school head and teachers, activities for which the State Education Boards need to be involved. But is this happening at all?

The RMSA framework emphasizes the importance of learning assessment in the school and periodic state level assessment to get an understanding of student learning levels so that it can feed into research on where students make mistakes. thereby influencing teacher support material and continuing professional development of teachers,

The framework highlights quality-planning process which requires institutional reforms and involvement of local communities to participate effectively in the affairs



of the school through School Management Committees. The involvement of the teaching community in the planning process would also be necessary to ensure that the school system emerges as the principal institution for community partnership.<sup>24</sup>

The RMSA Framework mentions the necessity to equip schools with a Learning Resource Center which includes Library inputs, ICT support and Edusat to improve education in Secondary and Higher Secondary schools.<sup>25</sup>

Thus, the understanding and the approach of quality under RMSA as per the RMSA Framework is comprehensive and covers all dimensions — inputs, processes and outcomes.

The NCERT in its RMSA Quality Vision document mentions a set of three dimensions that are to be improved within each school:

- (i) students' learning outcomes (what students learnt);
- (ii) governance of schools (how schools are run) and
- (iii) school provisioning (providing the resources, the school needs to improve).

The NCERT also developed a Quality Assessment Tool in which it identified eight indicators for Quality Assessment in schools which are (i) Infrastructural Facilities, (ii) School Environment-safe, healthy and inclusive (iii) Learning Resources, including curriculum and teaching-learning materials, (iv) Classroom and laboratory processes, (v) Leadership and school management, (vi) Teaching and non-teaching staff, (vii) Teacher development and (viii) Learners' assessment.<sup>26</sup>

The reports of the JRMs are very illuminating on the implementation of the RMSA.

The first Joint Review Mission (JRM) of RMSA was held from 14th to 28th January 2013 in New Delhi to review the progress in the implementation of RMSA with respect to RMSA Goals. Here, they raised the issue of learning outcomes and tried to identify the main constraints to learning outcomes. Finding effective strategies to overcome these constraints would help teachers respond to the multiple learning needs of their students and assist states to develop strategies which can be feeded into their RMSA proposals. It also found that each state visited was concerned about improving the learning levels of children, especially the influx of less educationally-prepared children now leaving elementary education, due to the advent of non-retention as per RTE. The states were also concerned that the current model of student examinations in secondary education is not helpful for teachers trying to diagnose student strengths and weaknesses and develop effective strategies to respond to children's different learning needs. The lack of comparability over time, also affects States' ability to make informed decisions; and the lack of comparability across states means it is not possible to get a national picture. Thus, right from the first JRM, there was a link made between learning outcomes and teachers and teaching strategies.

Linking teacher training, assessments of learning levels and remedial teaching. the Second JRM report points out some of the States have initiated learning enhancement programme or bridge courses under RMSA quality initiatives by surveying of children who have just entered class IX, administering a test to assess learning deficit and then conducting coaching classes or remedial courses as a follow on. Modules are then prepared specially for these bridge courses and teachers are given orientation for these capsule programmes. Some States intend to make this kind of assessment a regular practice and conduct such tests every year to improve learning levels of

children. The results of these tests were also made available to SCERTs to be incorporated as inputs for teacher training.

A considerable proportion of children enter the secondary stage without acquiring the competency level expected to be acquired at the level of the upper primary stage, the 3rd JRM, which was held from 13th to 27th January 2014, reports and thus it is desirable to conduct a formative baseline assessment of the reading, writing and arithmetic skills of every student and of remediating the inadequacies and preparing every student for secondary education. It opined that it is desirable to lay down the levels of reading, writing and arithmetic required to be achieved in class 9 and class 10 (Learning Indicator) and to conduct surveys each year. This particular step would have helped Secondary school teachers to identify the learning gaps in students without any large-scale assessments. It would also help to take steps to remedy this learning gap in individual students in the class itself, without waiting for the full-scale government programme. A few States have laid down competency levels and have begun to conduct learning achievement surveys. A national frame which specifies the minimum learning indicators as well as the levels of competencies for each of the classes at secondary stage will need to be developed to assist in generation of all India data on the achievement of basic competencies. It also noted that quality improvement measures like curriculum and syllabi revision, teacher training, development and use of teaching aids, and new methods of class room transaction are being introduced in some states. A warning bell was sounded by the JRM when it said, "It is essential that the relevance, adequacy and effectiveness of these measures be subjected to ex-ante assessment and ex-post evaluation by experts lest programme managers should harbour the illusion that quality is being enhanced. This is all the more important as States are being provided freedom to develop various quality improvement measures."

The fourth JRM of RMSA that was held from 4th to 12th August 2014 looked at In-Service Training for teachers. However, insufficient information on a wide range of aspects of in-service programmes prevented the JRM from making an informed opinion. Thus, the issue of a need for a study and evaluation of this aspect of RMSA implementation was raised. It recommended that States should prepare 3-year plans for quality improvement. This re-affirms the approach that NUEPA advocated in its 'Secondary Education: Planning and Appraisal Manual'. Till then, the overall coverage of in-service training was poor, with States not being able to complete the trainings they have planned and got funds for. However, this was a comment on the numbers and even then, there was no qualitative examination of how teacher trainings were implemented.

The fifth JRM Report which was held from 27th January to 9th February 2014 and included field observations from the states of Assam, Gujarat, Haryana, Tamil Nadu and Uttarakhand, mentioned that a common concern expressed by teachers to all state missions was that the majority of Grade 8 elementary school graduates enter secondary school without the foundational knowledge to cope with the Grade 9 syllabus and that this is a major concern which warrants urgent and targeted remedial action. The JRM found that in some States, 'bridging camps' were being held during the vacation prior to graduation to Junior Secondary. It recommended that other complementary strategies could include greater coordination and collaboration between grade 8 and 9 teachers over the course of the year. This could be further strengthened by school clusters which share resources – i.e. the creation of secondary schools with a defined set of feeder schools. For this to be institutionalized there would need to be coordinated guidance from SSA and RMSA. It also observed summarily that a field observation and analysis of NAS data indicates that

considerably more than 20 percent of students (the current RMSA funding norm for financing remedial education) require remedial support to bring them to a level of learning where they can cope with the secondary school curriculum and recommended a range of strategies to address this challenge. Some of the suggestions include review/revision of the 2005 NCF curriculum, closer elementary/secondary collaboration and better preparation of students during elementary school.

The tendency to commonly cite state average grade 10 board pass rates ranging between 60-80% as evidence that all is well with secondary schooling is misleading and erroneous since the State average pass rates are not a reliable indicator of secondary student performance. State averages hide significantly lower pass rates among small, rural and schools serving the most disadvantaged. It also cautions that depending on these State board exams pass percentage is very misleading due to the fact a majority of schools practice sending only those students who are likely to pass for the Grade 10 board examinations thereby ensuring that school pass rates are artificially high since these pass out rates do not take into consideration the number of students who have been held back, The use of State pass averages is therefore likely to mask important differentials in performance between subjects, school types and gender and social groups, when field visits and school wise data throw up cases where up-to 50% of students are failing their exams which indicate serious inefficiencies in the Secondary School system.

Another issue raised is the lack of subject teachers in Secondary Schools. The RMSA RFD reports that less than a quarter of all government schools have a full complement of specialist teachers. It was observed that shortage of subject teachers is a predictor of poor exam performance. Passing of the grade X board exam is determined by the composite score from all subjects a student takes which puts a student attending a

school without a full complement of specialist teachers at a distinct disadvantage in the examination. Shortfall in specialist teachers (notably Science and Maths and Languages) is common across India. In many instances this may be further exacerbated by sub-optimal teacher deployment. In combination this is likely to be contributing to high levels of exam failure/under performance particularly of the most disadvantaged sections of the population.

It was noted that the objective to improve student performance for the most disadvantaged will require particular attention to subject specific teacher shortages, teacher preparation and teacher deployment and recognized that addressing these issues is politically challenging and not likely to happen overnight, which are however critical for the continuing evolution of India's education system. Some suggestions for further interventions under the programme include (i) greater disaggregated analysis of exam pass rate data by geography, school location/ size, subject, gender, and disadvantaged group, (ii) closer attention to subject specific teacher shortage/recruitment, (iii) exploration of the potential tier teacher workforce deployment to provide a better subject teacher coverage across schools, (iv) and improved teacher preparation and training particularly in Maths, Science and Languages.

One of the most pertinent observation the JRM made was that In-service training being conducted by the states is perceived to have no long-term improvement in the quality of teaching. It noted that the in-service training component has been revised to an integrated training of 10 days (from the funding point of view) for teachers, 5 days for subject training and 5 days for ICT, IE or any training module/for Gender Sensitization/Guidance and Counselling/Adolescent Education, etc. Teachers have little say about the content of the programs and the content and practices are often

fragmented, lacking in intensity and with no follow-up. There are limited opportunities for collaborative and cooperative learning among teacher. It noted that even if teachers learn some ideas related to new pedagogies, the teacher's practice in classrooms has not changed in any significant manner.

Some states target their training at schools to improve Board examination pass percentage, thus undermining the significance of coordinated program of continuing professional development of teachers. The report critically points out that the mechanisms of quality control in the form of training evaluation, student assessment and follow-up of trained teachers are weak or absent and that to make the best use of this integrated training, there should be a systematic identification of training needs and teachers to be covered, and the training content to be delivered should be designed based on this. The ultimate measure of education quality is whether students can learn what they need to learn and that a strong system is one in which all children can achieve their potential.<sup>27</sup> One of the focus issues during this JRM was student learning assessments at the National and State levels. It also states that a key input into quality education is having adequate and well-trained teachers.

During the field visits as part of the JRM, it was observed that there is a heavy reliance on the subject and pedagogy oriented trainings in the training process. Considerable focus is being given for subject specific training, particularly in Science, Mathematics and Language. However, not much attention is given to integration topics such as ICT, life skills, inclusive education, gender sensitivity and hands on activity in the training content of pedagogical and subject training.

The overwhelming observation in report of the Seventh Joint Review Mission which was held on April 11-23, 2016 was that implementation of the quality framework

could be done in a more coordinated and cohesive manner and all that aspects of quality should get equal attention and that while there are instances of good practices, the scale has been modest. It was observed that Telangana Government has implemented a comprehensive reform of curriculum, textbooks, continuous and comprehensive evaluation and examination system. However, its impact on learning is yet to be assessed. The report mentioned that teacher professional development remains a challenge in all the states visited.

The JRM enumerated some critical aspects of quality and observed that Teacher availability, especially in Science, Mathematics and Language remain a formidable challenge- that State governments need to recognize the problem, come to grips with both supply and demand of teachers with respect to specific subjects and take action accordingly. States could also strategically use ICT to improve the quality of teaching, plan and manage pre-service teacher training with appropriate ;menthes for Science and Mathematics graduates to enroll in B. Ed, which would address teacher shortages in these areas to some extent.

The Eighth Joint Review Mission (JRM) of Rashtriya Madhyamik Shiksha Abhiyan that was held from September 20- 30th, 2016 focussed on the Quality. interventions aspects of the programme especially on learning outcomes, specifically the NAS Class 10, National and State reports of the NAS X, Secondary school readiness and remediation programs and Subject Teacher deployment for equitable distribution of subject teachers across schools. The JRM observed that under RMSA, teacher professional development is limited to in-service training and that there is a wide variation among States and UTs in the management and coverage of teacher training. The needs assessment before delivering training and the follow-up of the effect of training is limited. Moreover, the JRM is of the view that professional development



should expand to cover more opportunities for teachers to enhance their knowledge and skills. It was noted that the findings of the NAS point to the need for immediate attention and remedial action and linking this to teachers' ability to match their teaching to the actual learning levels of their students to be the most effective way they can support student learning. School readiness/remediation programs can help teachers use this pedagogical approach to support individual student's learning needs and that some States are adopting this strategy and taking forward secondary school preparedness and remediation programmes.

Existing common approaches to tackle this problem frequently rely on extra classes or additional classes during zero hour and assembly sessions or during the vacations or school breaks. However, it is also a challenge to ensure regular student attendance in such classes. Furthermore, this strategy makes it compulsory for those students identified as weak to attend, thereby segregating weaker students may add a degree of stigma and runs contrary to the principles of inclusion.

#### **2.4. OTHER STUDIES**

Sharma et al (2008) in their study found that risk behavior was found to be more among respondents who were currently studying in or had done their schooling from Government or Government Aided schools. This study highlights need of improvement of environment prevailing in government or government aided schools to control violent behavior tendency in future grown up adults.<sup>28</sup>

Bhatnagar and Das (2014) in their study found that there is considerable lack of awareness among Delhi government school teachers about inclusive education of students with disabilities. The main concerns for implementation of inclusive

education were poor infrastructure, financial limitations, large size of classes and lack of training and inclusive policy.<sup>29</sup>

Ranasinghe et al (2016) in their study found that those male and female students who infrequently wash their hands reports symptoms of depression more than their peers who indulge in sanitation practices and this association was very significant in India. This study highlighted poor sanitation practices prevalent in India school going childrens.<sup>30</sup>

Sindhi (2015) in her study found that with implementation of Right to education Act 2019, the population of school going children in India is increasing but most of the schools are barely able to provide basic infrastructure and consequently compromising gravely with respect to safety norms. A whole school approach for managing safe school environment requires that all member of school community should work together and develop their own guidelines and policies.<sup>31</sup>

Oza et al (2016) in their study found that In-service training implementation has been started in most states and UT's actively from the year 2011-12. Report studied learning in five states Assam, Bihar, Karnataka, Madhya Pradesh and Odisha. It also found that though training is clearly a concern of many of the states, it is questionable as to the extent whether it is of any value to the training development. It was also not clear as to what extent emphasis is being put toward RMSA priorities inclusive education, ICT, life skills and leadership.<sup>32</sup>

A World Bank conducted study found that time spent in learning activities is a significant predictor of student academic achievement. Study was conducted in secondary school classrooms (150) with objective of better understanding teacher's use of pedagogical practices, their use of teaching learning material and their

understanding of common errors made by students. The main findings of study were that Instructional Practices were mainly teacher-centric and that on an average, teacher spend 60% of classroom time on lectures or instruction and assigning students class work in Math Classes; in language classes, about 60% of the time is spent on these activities including reading aloud from the black-board or text book. Evidence of the use of other learning aids was observed to a very small extent and use of ICT was not found. Finally, Teachers were able to correctly identify students errors only about a third of the time on questions. The study highlights the need for further examination on the link between classroom practices and student outcomes.<sup>33</sup>

## **2.5. CONCLUSION**

The review of literature was focused upon the issues, especially quality concerning the secondary education, critical role of teacher education, and teacher learning, inclusive education, infrastructure and the various means to bring about quality in schools.

A common theme running through all the above works is that teacher effectiveness is a major hinge on which students' achievement and achieving quality depends alongwith underlying provision of school environment, curriculum design, learning resources, students support and guidance.

The literature review thus facilitate the researches to put the present study in perspective with current knowledge and practices in the area. It was found that there is a need for more research in the area as opportunity for more research will not only address concerns regarding effective implementation of the programme but would also examine if there is any need to change any of the provisions.

Owing to the ambiguity of the understanding of quality concepts, varying contexts and deeply embedded problems within the education system on the whole, especially in the context of government sector schools, the present study is both timely and relevant and may perhaps implore state government to improve on quality of education standards in government sector schools to shape better future of country.

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- <sup>24</sup>Framework for the Implementation of RMSA (MHRD) page 15
- <sup>25</sup>ibid, page 32
- <sup>26</sup>NCERT, Quality Assessment Tools, August 2015, New Delhi, Page 8
- <sup>27</sup>RMSA 6th JRM, MHRD,2015
- <sup>28</sup>Sharma, R., Grover, V.L., and Chaturvedi, S. (2008), Risk behavior related to interpersonal violence among school and college going adolescent in South Delhi. Indian Journal of community medicine, 33(2), 85-88
- <sup>29</sup>Bhatnagar, N. and Das, A (2014), Regular School Teacher's concern and perceived barriers to implement inclusive education in New Delhi, International Journal of Instruction, 7 (2), 89-102
- <sup>30</sup>Ranasinghe, S., Ramesh, S. and Jacobsen, K. H. (2016). Hygiene and mental health among middle school students in India and 11 other countries. Journal of Infection and Public Health, 9, 429-435
- <sup>31</sup>Sindhi, S. Nov (2015) Are Indian Schools Committed to creating a safe school environment, Eurasia Review Journal ISSN 2330-717X.
- <sup>32</sup>Oza, J., Cousins, P. and Pandya, P. (2016) RMSA Teacher In-service Training Evaluation, RMSA-TCA Report No. 2.17, Mar 2016
- <sup>33</sup>World Bank, Feb 2014, How much and what kind of teaching is there in elementary education in India, Evidence from three states.

## **Chapter 3**

# **RATIONALE OF STUDY**

### **3.1. STATEMENT OF PROBLEM**

Though education system is improving in Country but it leaves much to be desired. Private v/s government education system has widened this gap. There was considerable difference in facilities and education standards at these streams of education pillars of country. The government schools despite of attracting probably best talents as its teacher have failed to nurture these talents into the best teacher and due to continuous apathy towards its infrastructure, in most of government schools, standards of classes and building was deplorable.

The available literature shows that though various aspects of education have been studied in the context of the quality issues, there is no study carried out yet to look at whether the steps initiated by Delhi Government to improve standards of its schools has really improved quality in its educational institutions and whether steps initiated by Delhi Government has actually transformed standards of these schools.

### **3.2. RESEARCH OBJECTIVE**

- 1) To find growth/upkeep of Delhi government schools.
- 2) To find out satisfaction of Principal, Teachers, Students and Parents with school.
- 3) To examine the appropriateness and sufficiency of existing facilities in schools.

- 4) To check the success/growth of schools from previous years.
- 5) To find out its success parameters

### **3.3. HYPOTHESIS**

**H<sub>0</sub>** Government policies/ its proactive involvement in daily running of schools cannot cause any significant improvement in schools' performance.

**H<sub>A</sub>** Government policies/ its proactive involvement in daily running of schools can bring significant change and improvements in schools' performance.

### **3.4. LIMITATION OF STUDY**

1. This study was confined to those Delhi government schools where permission was granted by department of education, Delhi government.
2. The time period to study parameters in details and their impact on students was very limited. Delhi government gave permission very late only after great persuasion.
3. The schools were scattered over considerable distance over delhi geography causing loss of considerable time in commutation.
4. First declaration of election in Delhi state and then start of examinations in schools put considerable stress on study.
5. Parents and students not conversant well with English language were supplied with questionnaire in Hindi also but still few parents were hesitant to answer questionnaire.
6. This study is not gender specific.

7. As study was conducted during and immediately after delhi assembly elections in a politically charged environment, some samples were reluctant/ unwilling to participate in the survey.
8. Covid -19 broke out during the period and it led to complete lock down in delhi and NCR in later stage, leading to shut down of institutions.



## **Chapter 4**

# **METHODOLOGY**

### **4.1. INTRODUCTION**

Research implies discovery, development and verification of facts. It signifies and endeavours to discover intellectual and practical solutions to a problems to the application of scientific methods and involves defining and redefining problems hypothesis, formulation, organizing and evaluating data, deriving deductions, inference and inclusions after careful testing.

This chapter discusses the methods and design used in the filed study, sampling procedure, description of samples, instruments used, procedural details and approaches used for analysis. A sample study approach was selected for the study to find out progress, quality and development of Delhi government schools.

The research is aimed at finding out the awareness of Principals, teachers, students and their parents with quality parameters at schools, their expectation from schools, implementations of government initiative/polices at the school, to physically verify the works done on ground, quality of infrastructure, standard of education, safety parameters etc.

### **4.2. DESIGN OF STUDY**

The following sequence elaborates the overall plan of the study and delineates the steps taken during the process of the study.

- (i) Locale of the study

- (ii) Sample Selection
- (iii) Sampling techniques
- (iv) Tools for data collection and scoring
- (v) Statistical analysis and interpretation of data

### **4.3. LOCALE OF THE STUDY**

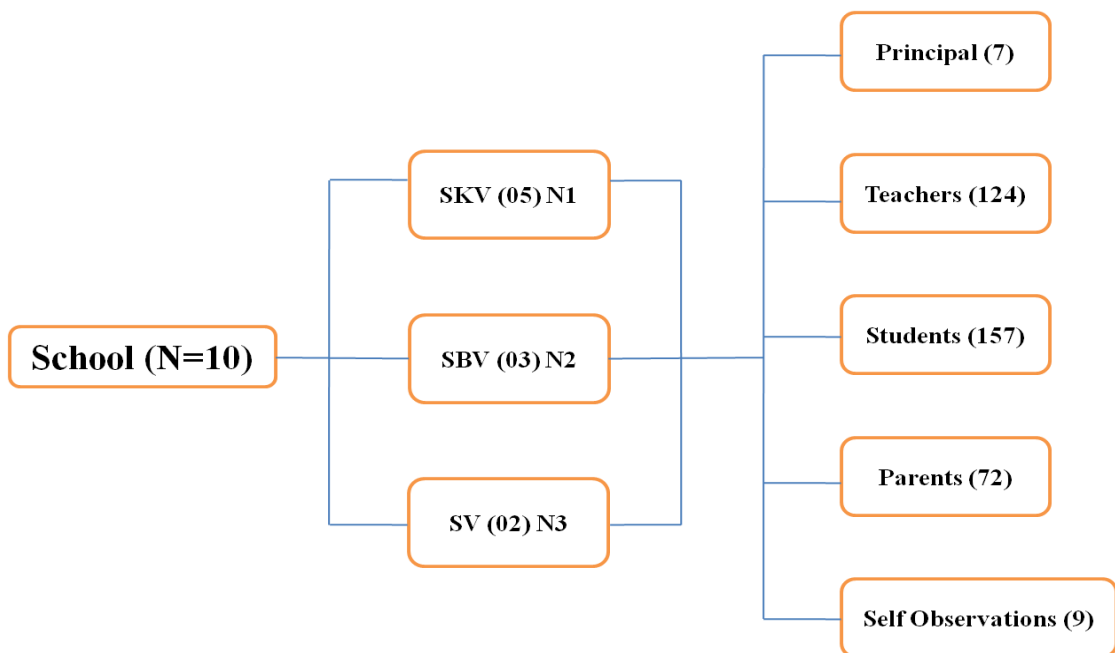
There are total 1028 schools under Delhi government and are categorized into 3 types – Sarvodaya Kanya Vidyalaya (Girls School), Sarvodaya Bal Vidyalaya (Boys School), Sarvodaya Vidyalaya (Co-ed). Being government schools, schools initially denied any data collection and insisted by principals for permission of Department of Education (DoE) for data collection in the government run schools. Hence researcher approached DOE for permission of the same, Department of Education gave permission to conduct survey in ten schools vide their letter no. DE.23(455)/Sch.Br/Pt.252 dated 27<sup>th</sup> Feb, 2020. (enclosed as Annexure I). Details of school where survey was permitted are as below:

- (i) Sarvodaya Kanya Vidyalaya
  - a. SKV, Motibagh-1, School ID 1719073,
  - b. SKV, Chirag Delhi, School ID 1923037,
  - c. SKV, Pushp Vihar, School ID 1923071,
  - d. SKV, Green Park Extn., School ID 1925032,
  - e. SKV, Pandara Road, School ID 2026004
- (ii) Sarvodaya Bal Vidyalaya
  - a. SBV, Rouse Avenue, School ID 2127001

- b. SBV, Chirag Enclave, School ID 1925003
- c. SBV, Lajpat Nagar, School ID 1925059
- (iii) Sarvodaya Vidyalaya
  - a. SV, No.3, Sector-7, R.K. Puram, School ID 1719022
  - b. Kalkaji School of Excellence, School ID 1925430

#### 4.4. SAMPLE OF THE STUDY

The total sample constituted 360 subjects ( Principal 07, teachers 124, students 157, parents 72) as graphically depicted below:



**Figure 4.4: Sample of the Study**

#### 4.5. TOOLS FOR DATA COLLECTION AND SCORING

To study the growth, progress and quality of Delhi government schools, the questionnaire and interview schedule were prepared on the basis of objectives of the study. Questionnaire are placed as Appendix “A to F”.

#### **4.6. PROCEDURE OF DATA COLLECTION**

The data was collected on the basis of questionnaire and interviews schedule. All concerned were assured about the confidentiality of results. The procedures of filling the questionnaires were explained to them and the queries, doubts etc. was replied accordingly.

To begin the data gathering process, after permission from Department of education, each principal was personally contacted by researcher himself and after his consent and time approval, the teachers of these schools who voluntarily agreed to cooperate in the study were communicated the purpose and aim of the study. The teachers then informed the students about the study and those who consented to be involved in it were randomly selected to participate. The data with respect to parents was collected through the questionnaire distributed to the students randomly selected.

The physical verification to examine the appropriateness and sufficiency of existing facilities, infrastructure availability, quality of furniture and ambience of school departments was undertaken by researcher himself.

#### **4.7. STATISTICAL ANALYSIS AND INTERPRETATION**

Data collected from the principals, teachers, students, parents and self observation were cleaned and prepared for analysis and statistical tests. Descriptive statistics is used for summarizing the data obtained through survey. Microsoft Excel is used to prepare interpreting charts and analysis of data.

## **Chapter 5**

# **DATA ANALYSIS AND INTERPRETATION**

### **5.1. INTRODUCTION**

This Chapter deals with analysis of the collected data. The data has been analysed keeping in view the hypotheses as well as the objectives and has been divided into five major categories. To gauge out school's progress, their achievements, belongings, satisfaction level and overall happiness questionnaires were formulated, one each for principals, teachers, students and parents. The questionnaire for parents of students were drafted in Hindi also as per intimation of schools. The facilities with respect to infrastructure were verified by physical observations of the schools.

The data was collected from total seven schools as principals of two schools were reluctant to share data and to participate in survey and third school though willing to participate in the survey but due to outbreak of Covid-19, it couldn't be completed.

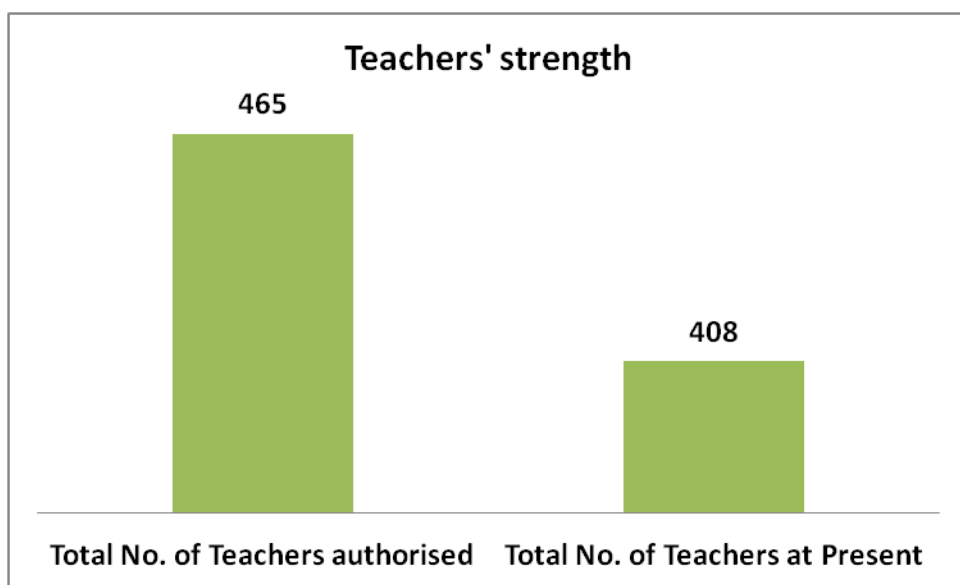
### **5.2. RESPONSES FROM PRINCIPALS**

"There are no good schools without good principals."  
Arne Duncan

The school principal is the primary leader in a school building. A good leader always leads by example. The role of the principal covers many different areas including leadership, teacher evaluation, and student discipline. Being an effective principal requires hard work and is also time-consuming. A principal must become efficient at practices such as prioritizing, scheduling, and organization. A principal should be

positive, enthusiastic, have his hand in the day-to-day activities of the school, and listen to what his constituents are saying. An effective leader is always available to teachers, staff members, parents, students, and community members. He stays calm in difficult situations, thinks before acting, and puts the needs of the school before himself. An effective principal steps up to fill in holes as needed, even if it isn't a part of his daily routine.

### 5.2.1. Authorised and current Strength of Teachers in schools



**Figure 5.2.1 Teachers' strength**

The schools were holding 408 teachers against sanctioned strength of 465. On percentage scale it turns out to be 88% which is a healthy sign. However, the picture does not cover teachers held as guest faculty separately. Principals couldn't intimate actual strength of teachers and strength of guest teachers separately. Anyway holding of teacher is good but administration need to take care about qualification of guest teaches as well as some training for such teachers.

### 5.2.2. Pass percentage of students of Class 10 & 12

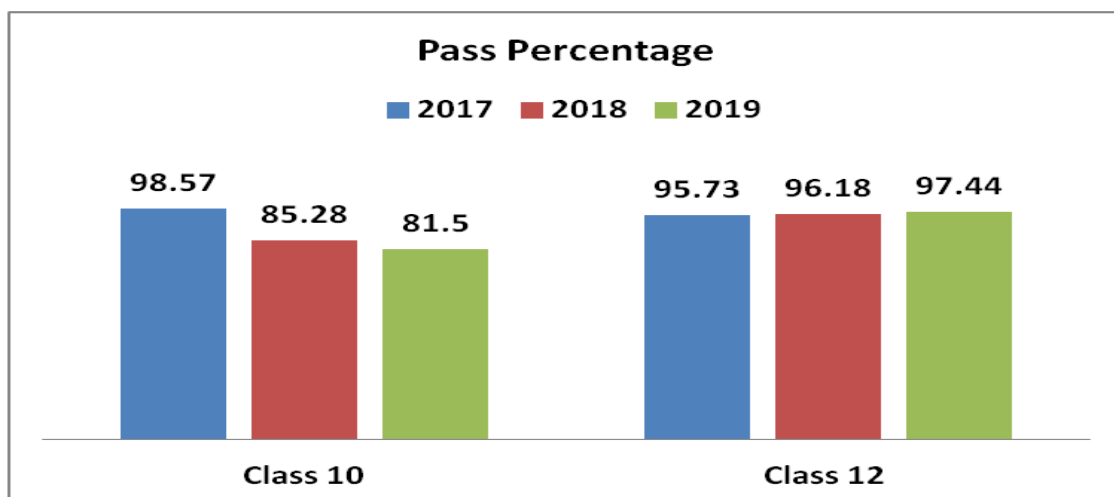


Figure 5.2.2 Pass Percentage

The pass percentage of students in Delhi school in class 12 is increasing every year, while it was 95.73% in year 2017, it increased to 97.44 in year 2019. That shows considerable progress and success of efforts put in by administration. However, equally worrying part is slide in class 10 schools while it has 98.57% in year 2017 but slided to 81.5% in year 2019. This slide needs to be looked into by the administration and they have to work for overall result progress instead of a particular class.

### 5.2.3. Cleanliness of Schools

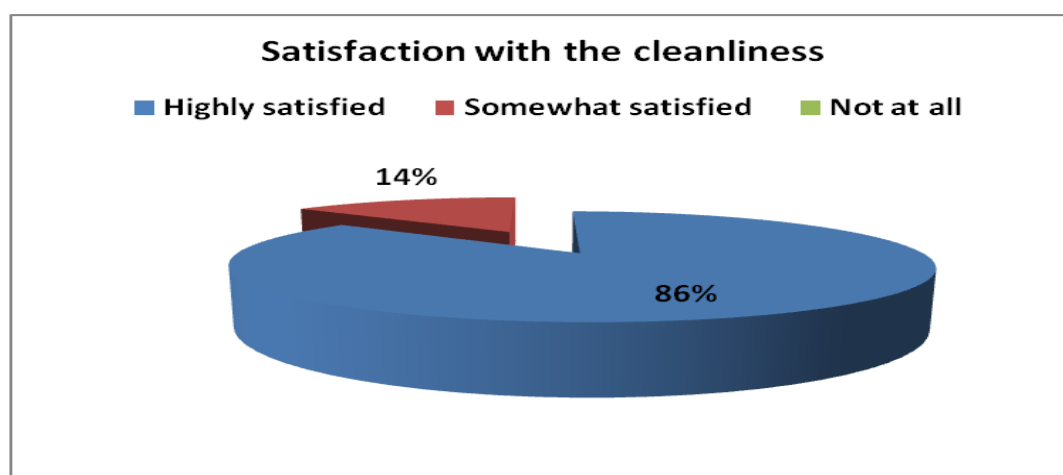
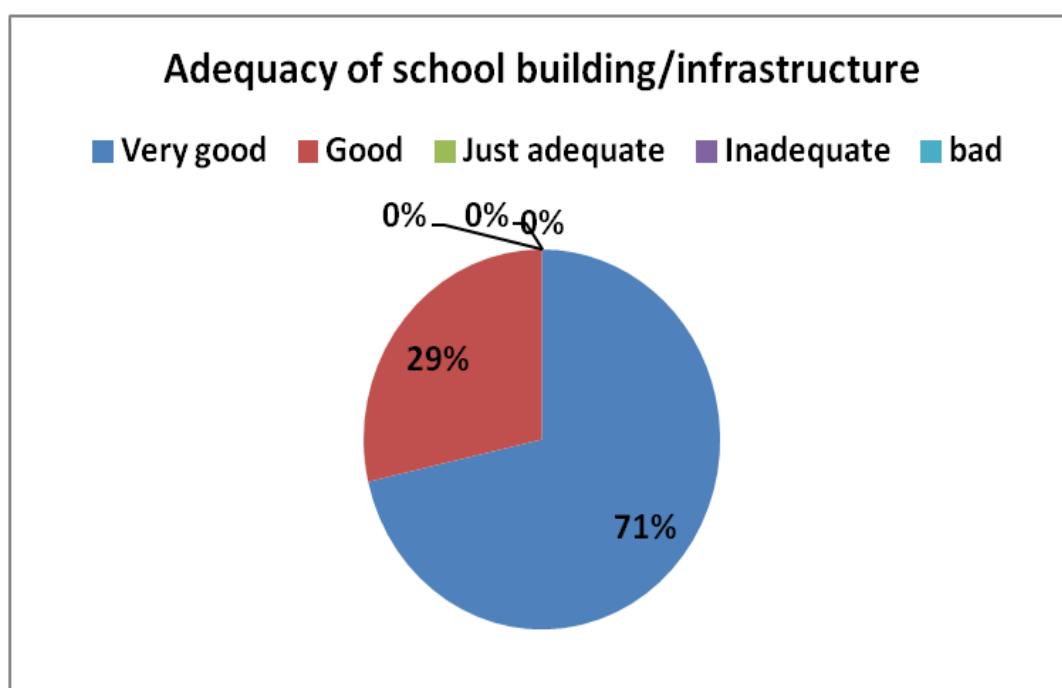


Figure 5.2.3 Satisfaction with the cleanliness

The cleaning of all schools surveyed was outsourced. All principals were highly satisfied with standards of cleaning. Researcher also personally inspected toilets and found toilets and outside area reasonably clean. Maintenance of cleaning standard of public places is quite a challenge and by outsourcing cleaning, Delhi schools has handled this particular problem in an effective manner.

#### 5.2.4. School Building

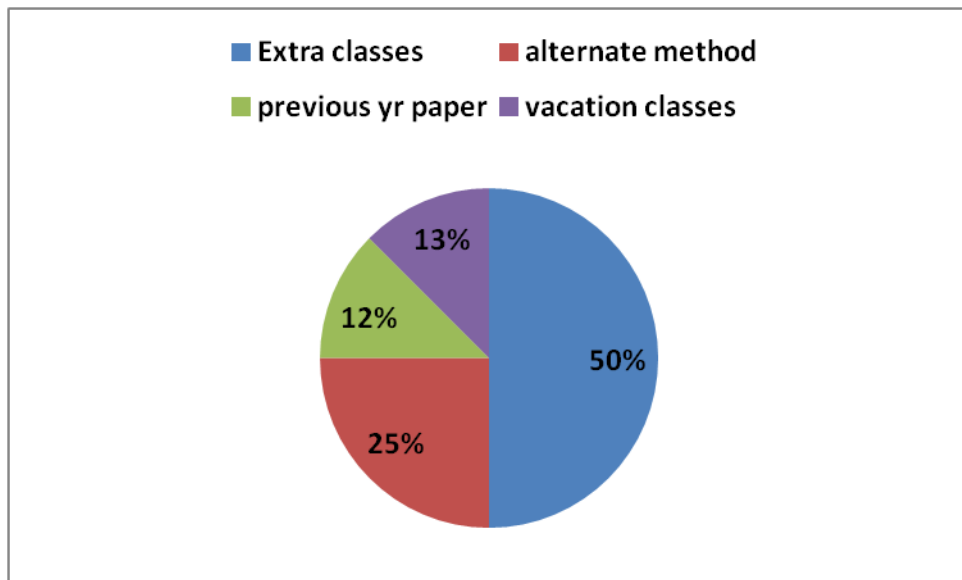


**Figure 5.2.4 Adequacy of school building/infrastructure**

There has been visibly tremendous work done in improving building infrastructure of schools. All principals were found happy with school building structure and maintenance. New building work was in progress at three schools, five have already been operating from new renovated buildings and two schools were working from old but maintained infrastructure.



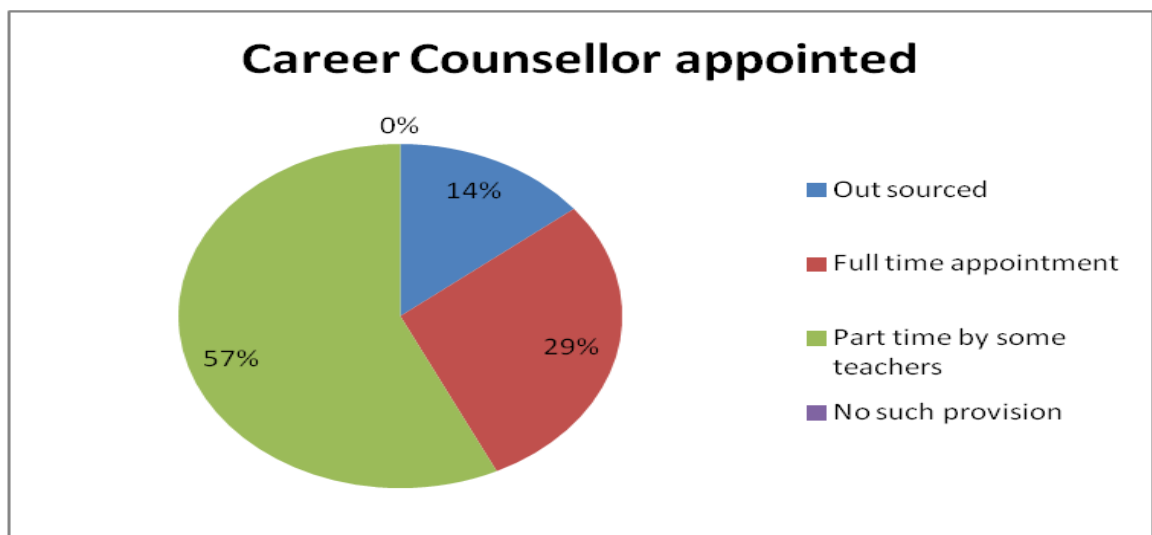
### 5.2.5. Efforts for improvement of performance of students



**Figure 5.2.5 Extra efforts for improvement of performance of students**

The principals were conscious about weak students in classes and almost 63% were holding extra/vacation classes for such students. In addition to extra classes if principals would have explored reasons of weak performances and addressed issue accordingly it would have been much better. Some more emphasis is necessary on alternate way of explaining the subject as compared to just 25%.

### 5.2.6. Career Counsellor in Schools



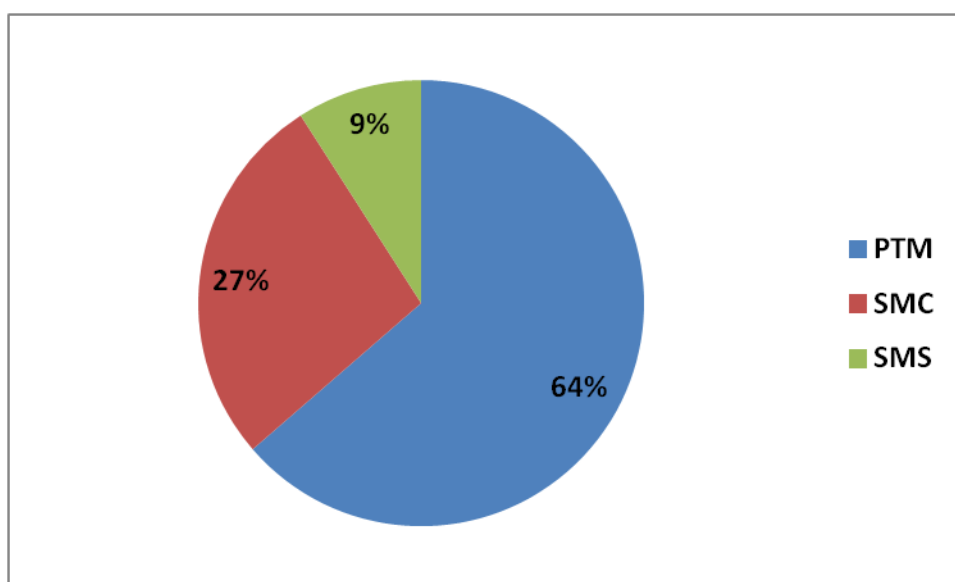
### Figure 5.2.6 Career Counsellor

The first education commission 'secondary education commission (1932-53) of Education' known as Madalias Commission, recognized the importance of proper guidance for students as part of education.

RMSA guidelines wanted PGT level school counselor at cluster/block/district level and every school was supposed to have at least one and preferably two (one male and one female) teacher trained in guidance and counseling.

Despite of above guidance career counselor job/aspect seems neglected by administration as only 29% schools admitted having full time career counselor and rest were working with Ad-hoc system.

### 5.2.7. Method of involvement of Parents in development of students



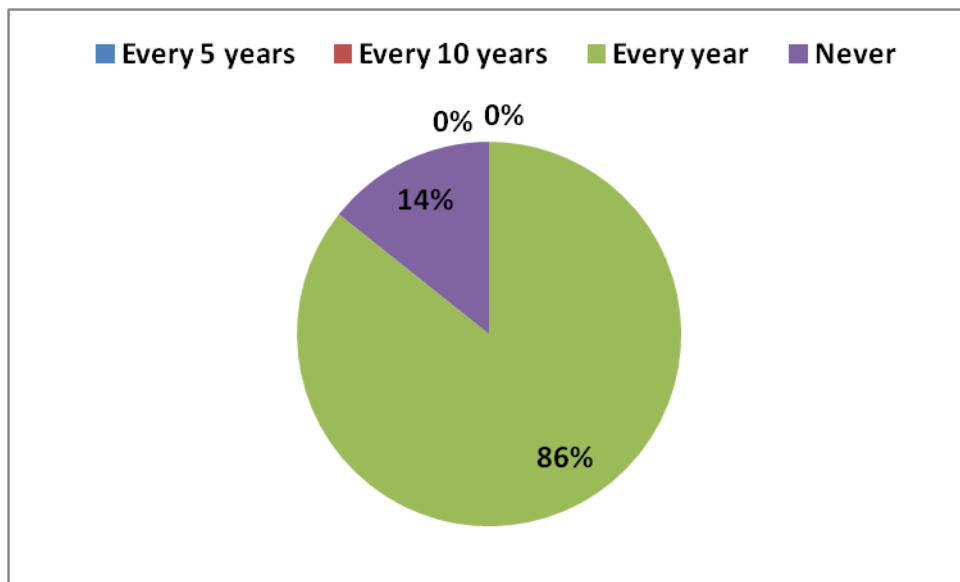
**Figure 5.2.7 Method of involvement of parents**

On an average 64% Principals preferred quarterly parent teachers meeting method to meet parents of students and discuss issues. Use of SMSs was negligibly i.e 9% only. In current digital mobile age usage of SMS was way behind than expected norm.

Government schools need to utilize convenient method of SMS more than present one.

School Management Committees (SMC) have been made mandatory for schools under the RTE Act of 2009. This is constituted in the schools to ensure the community and parents are involved in management of schools and take an active role in the planning, implementation and monitoring of developmental programmes for the school. It creates a feeling of ownership among the primary stake holders (parents) and helps in building the partnership and networking between the school and parents. The SMC can also be effectively used for interaction with parents.

### 5.2.8. School Building Safety Inspection

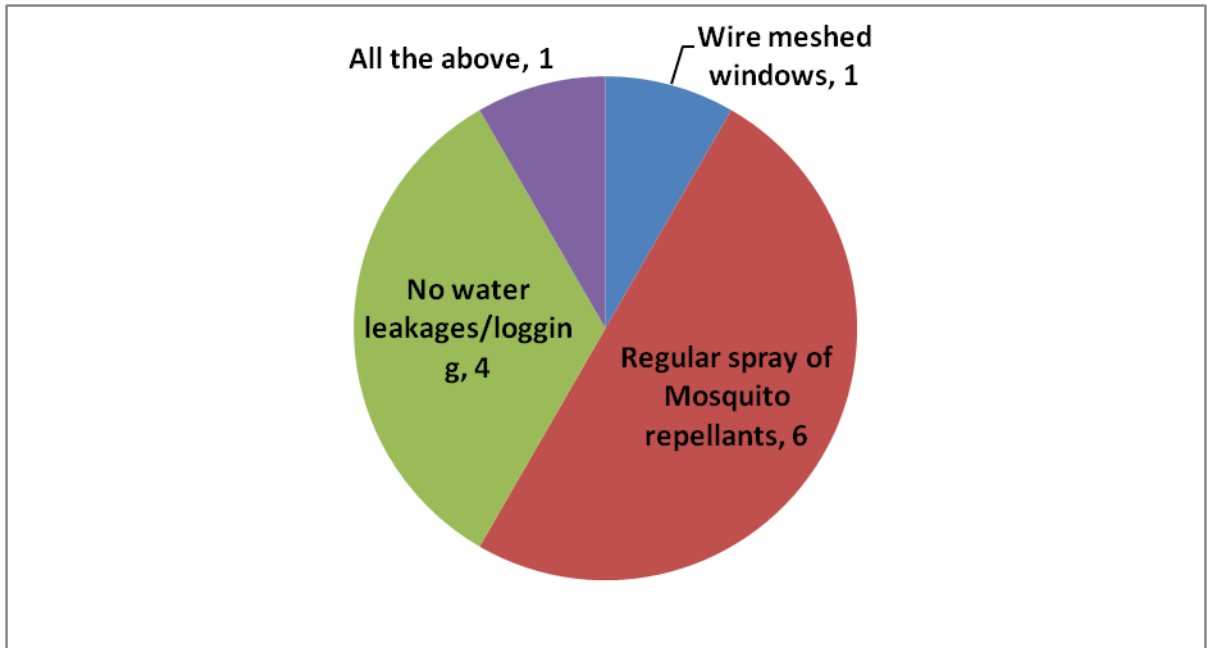


**Figure 5.2.8 School structure inspection**

On asking about frequency of safety inspection of building structure, overwhelming percentage of principals reported that it is being carried out every year. But laid down period is 5 years. Hence, it seems principals are not advised properly by estate offices. Some schools were being operated in some rooms built in 1960s. Though new

building work for such rooms is in progress, old structure need to be properly examined and recorded by qualified structural engineers.

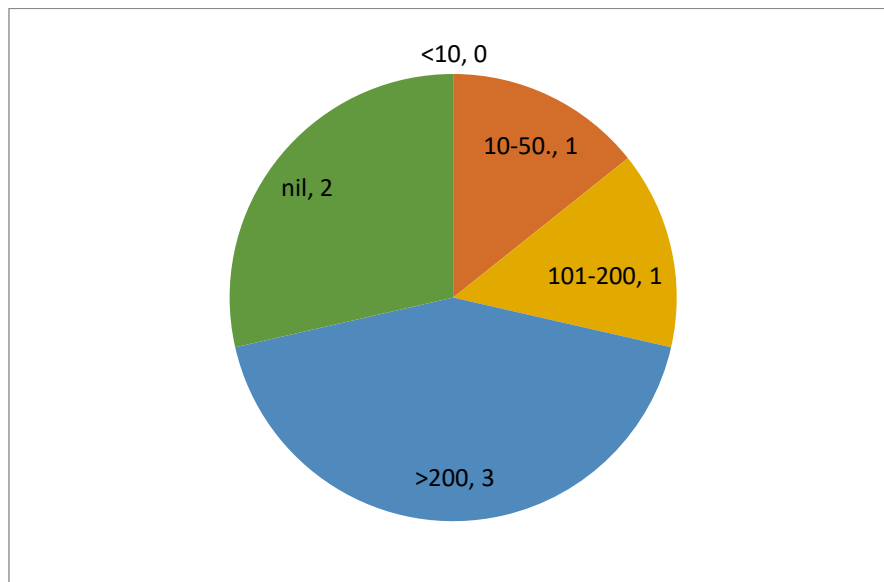
### 5.2.9. Provisions to fight Mosquito menace



**Figure 5.2.9 Provisions to fight mosquito menace**

During survey 64% students admitted facing mosquito problems. Though almost all principals agreed to regular spray of mosquito repellants in schools but this method seems not so effective as to control mosquito problem in the classes. Principals should explore other methods also in addition to spray to check the mosquito problem in classes. One of it may be wire meshing in all windows and doors of classes which was considered least preferred mode of handling this problems.

### 5.2.10. Vocational Training of Students

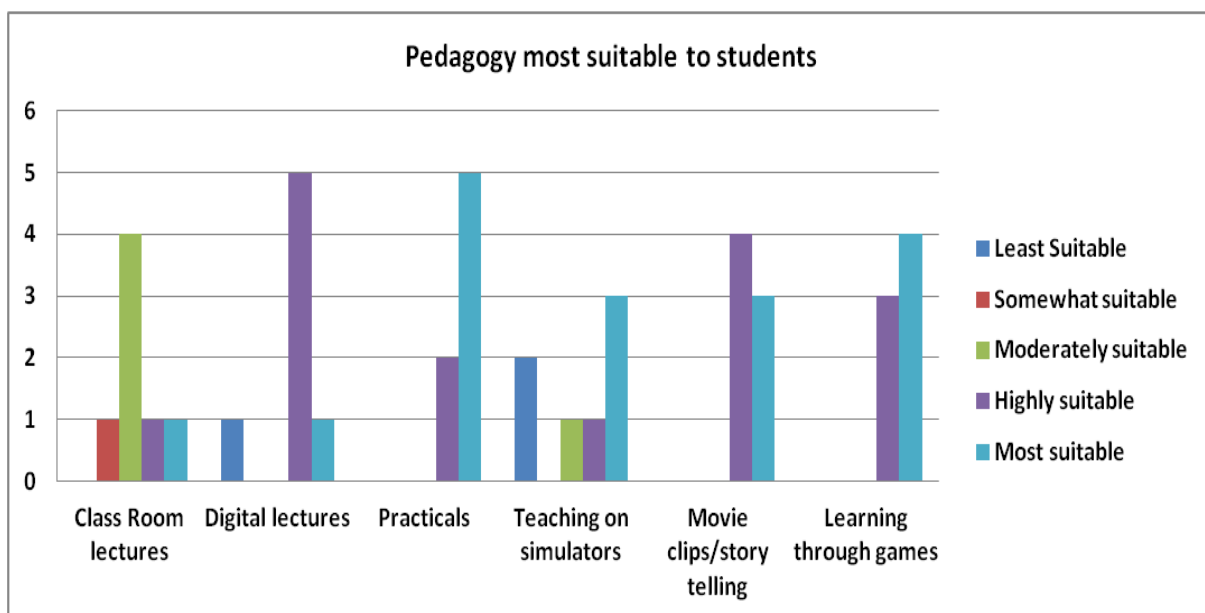


**Figure 5.2.10 Vocational training of students**

Addressing a gathering of teachers, educationist and government officers at the Delhi Secretariat on July 2, 2015 then President of India Shri APJ Abdul Kalam had said that 25% of schools time, for students between class 9 to class 12, should be devoted to skill development. He had also suggested to Delhi education minister Shri Manish Sisodia to provide two certificates to the students passing out from Delhi government schools – academic education and vocational certificate to choose the vocation as per his/her area of interest.

But even after passage of four years vocational training seems to be getting little importance. Only in 3 schools more than 200 students chose vocational training and in remaining schools it was negligible. Vocational training needs to be given more importance by schools so that students get an opportunity to choose their career of choice.

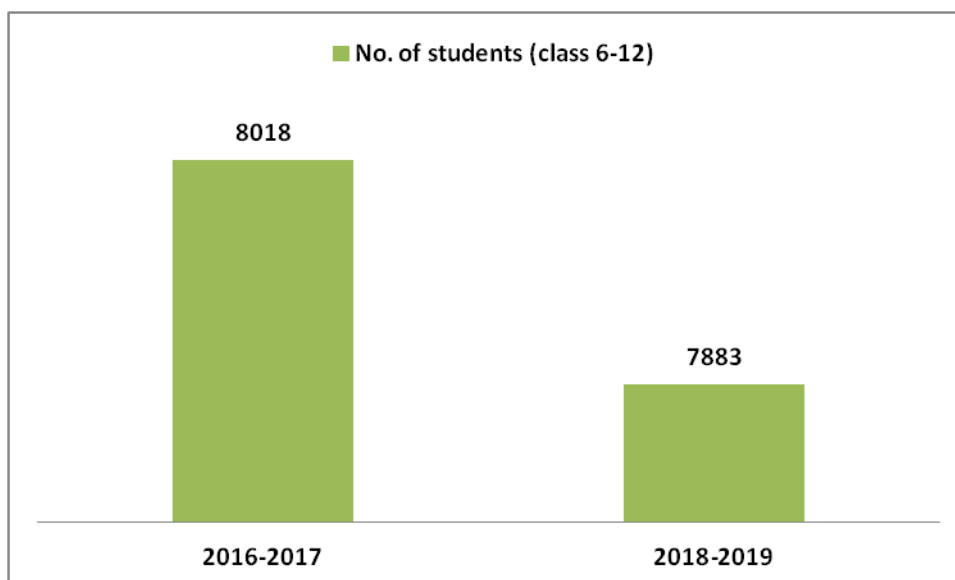
### 5.2.11. Pedagogy Standards



**Figure 5.2.11 Pedagogy most suitable to students**

The most suitable accepted mode of imparting knowledge to student was digital (audio-video) lectures by most of the respondents but ironically it was the least addressed/ used mode in classes. As only green chalkboards were available in every class and projector with white board was rarely available in classes. Hence same needs to be addressed in future.

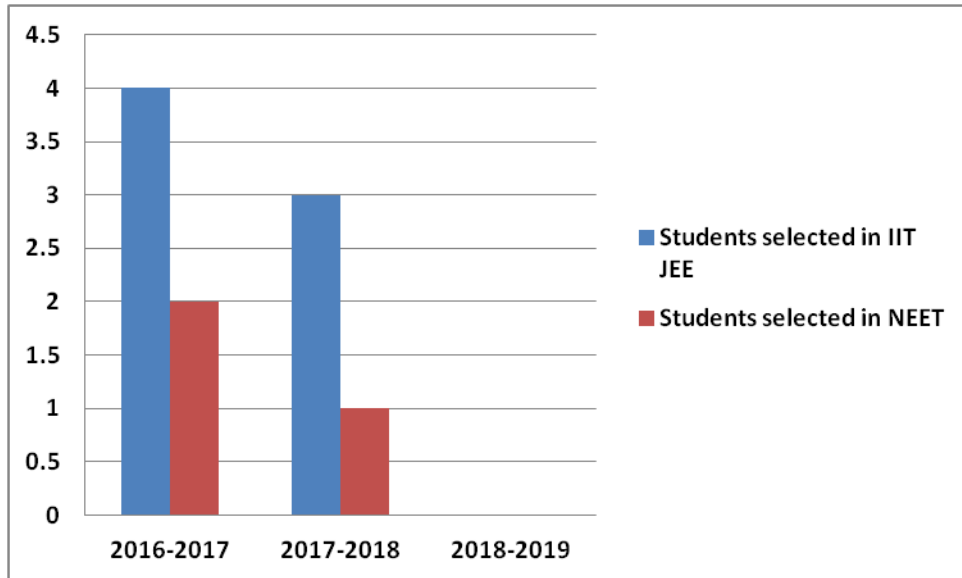
### 5.2.12. Strength of Students



**Figure 5.2.12 No. of students (class 6-12)**

Despite considerable improvement in infrastructure of schools, the student strength is decreasing in Delhi government schools. Administration needs to find out reasons for depletion of strength.

**5.2.13. Students Performance in competitive exams**



**Figure 5.2.13 Students' performance in competitive exams**

In 2016-17, 04 students were selected in IIT-JEE exam. This strength reduced to 03 students in 2017-18 and no student was selected in 2018-19. Similarly, 02 students were selected in NEET in 2016-17 and 01 student in 2017-18 but no student was selected in NEET in 2018-19.

The decreasing graph of selection of students in competitive exams is not a good sign. Schools need to nurture students for better handling of these exams and need to upgrade education standards to meet the high standards of the competitive exams.

### 5.3. RESPONSE ANALYSIS FROM TEACHERS

*“Teachers are our greatest public servants; they spend their lives educating our young people and shaping our nation for tomorrow”*

Solomon Ortiz

Teachers are the ones who build a good nation and make the world a better place. A teacher teaches us the importance of a pen over that of a sword. They are like the building blocks of society who educate people and make them better human beings. Teaching is one of the most complicated jobs today. It demands broad knowledge of subject matter, curriculum, and standards; enthusiasm, a caring attitude, and a love of learning; knowledge of discipline and classroom management techniques; and a desire to make a difference in the lives of young people. With all these qualities required, it is no wonder that it’s hard to find great teachers. The role of the teacher became even more significant factor in education with the passage of ‘The No Child Left Behind law in 2002’.

#### 5.3.1. Service Profile of Teachers

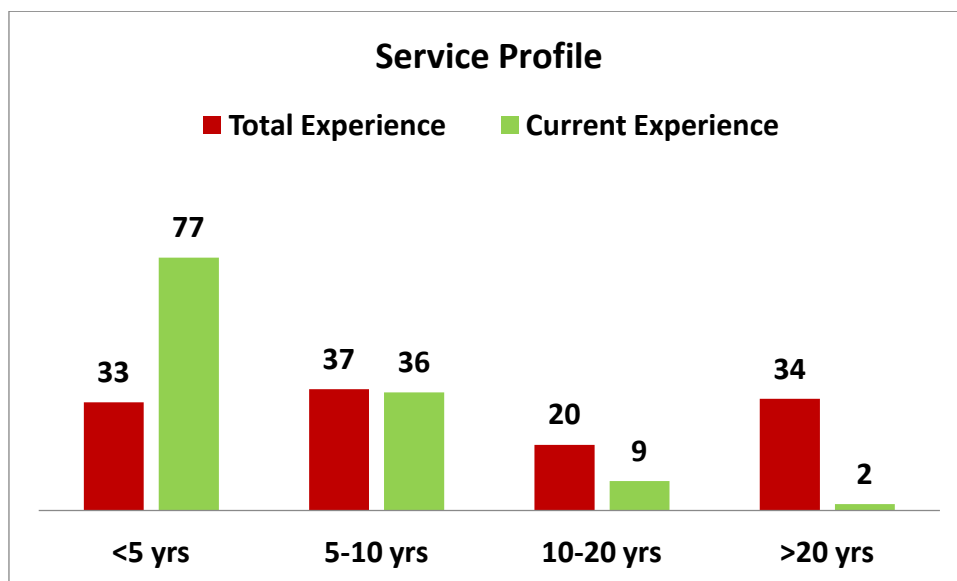
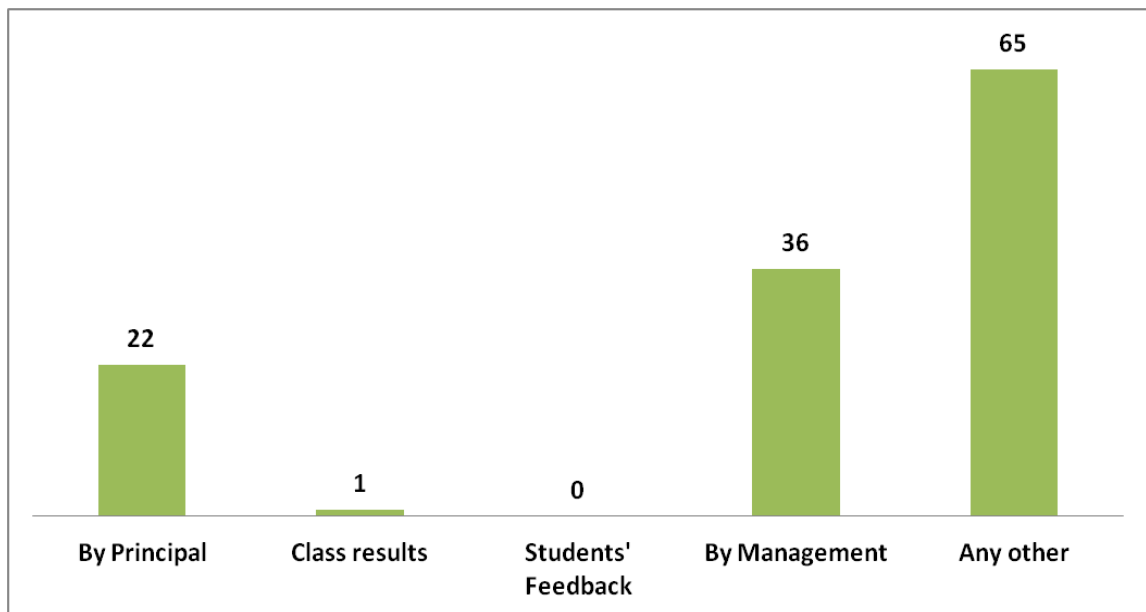


Figure 5.3.1 Service Profile of Teachers



Data reveals that 26% of teachers' service span is less than 5 years which indicates relatively new recruitments/ guest teachers. If we add in this 13% vacancies as revealed in principals' responses, the relatively new teachers' strength jumps to 40%, which shows poor attention towards teachers recruitment in past. Teachers are the single most effective element to bring change in students. Hence recruitment of teachers should be expedited along with effective training to these new teachers. One more point revealed from above figure is appx 62% are having current experience of less than 5 years which indicate current transfers in 5 year implying proper implementation of transfer policy.

### 5.3.2. Mode of selection for attending training

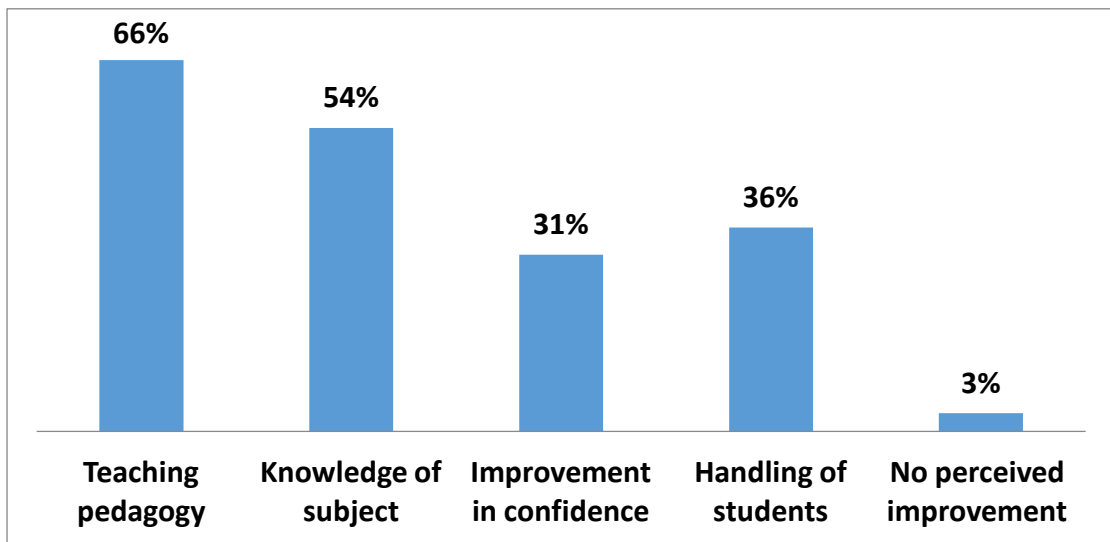


**Figure 5.3.2 Mode of selection for attending training**

While first point revealed that administration is quite sensitive towards filling up vacancies, this point reveals the lack of transparent training policies. From data it is revealed that maximum teachers were not sure or confident about their selection for training, more than 50% either didn't know selection criteria or considered it as selection by Deptt of Education. While 30% believed they were selected by school

management and 18% believed they were selected by principal. Almost nil except one believed that they were selected on basis of class performance. As training is aimed to improve class performance so percentage selection based on class performance need to be increased from nil to at least 25% to enhance devotion towards class.

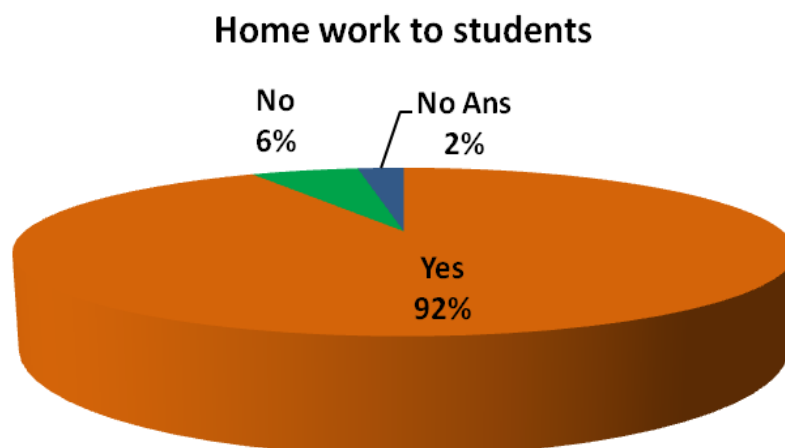
### 5.3.3. Improvements after attending the training programmes



**Figure 5.3.3 Improvements after attending the training programmes**

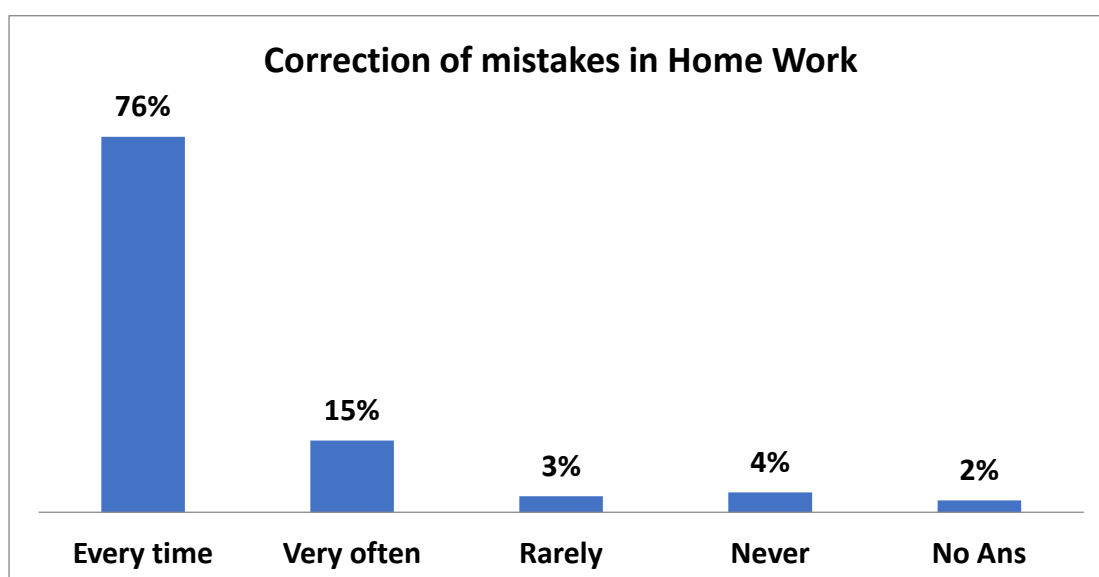
More than 50% teachers considered training very important not only for improving their teaching skills but also for improvement of their knowledge of subject also. A significant percentage accepted it to improve their confidence in class as well as necessary for discipline also. However there was no data available available for comparison of improvements in class performance before and after training. Administration should devise some methodology to gauge improvements in class performance before and after training so as to ascertain effectiveness of training and improvement accruing from such trainings.

### 5.3.4. Home work to students



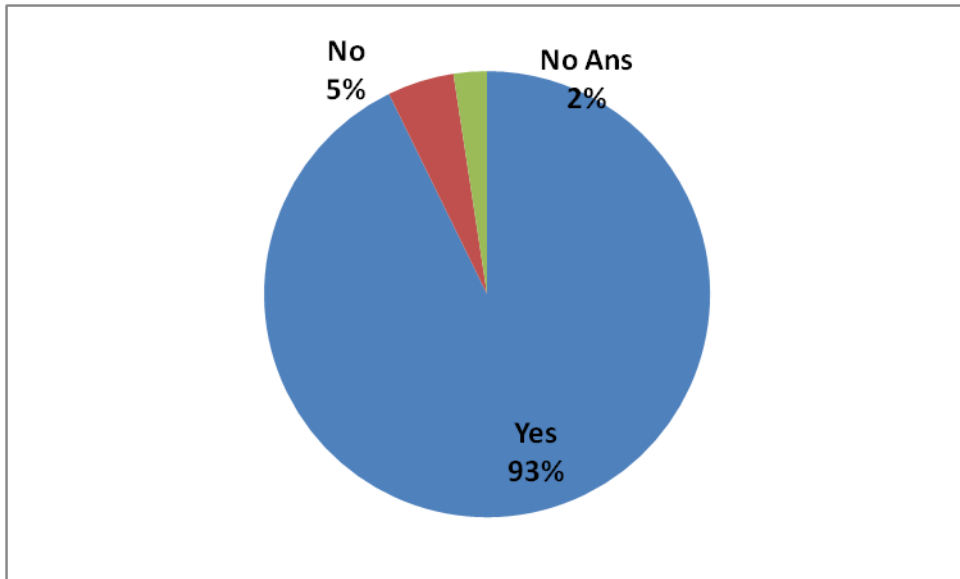
**Figure 5.3.4 Home work to students**

Almost all teachers surveyed overwhelmingly accepted to give home works to students. Only negligible percentage accepted that they don't give any homework to their students. While on asking how often they check home work carried by students and correct it, only 76% agreed to check it every time and 15% agreed to check it very often. This slip in checking home work may be due to non availability of time during covering topic or may be due to just slip. In any case failure to check home work defeats its purpose itself.



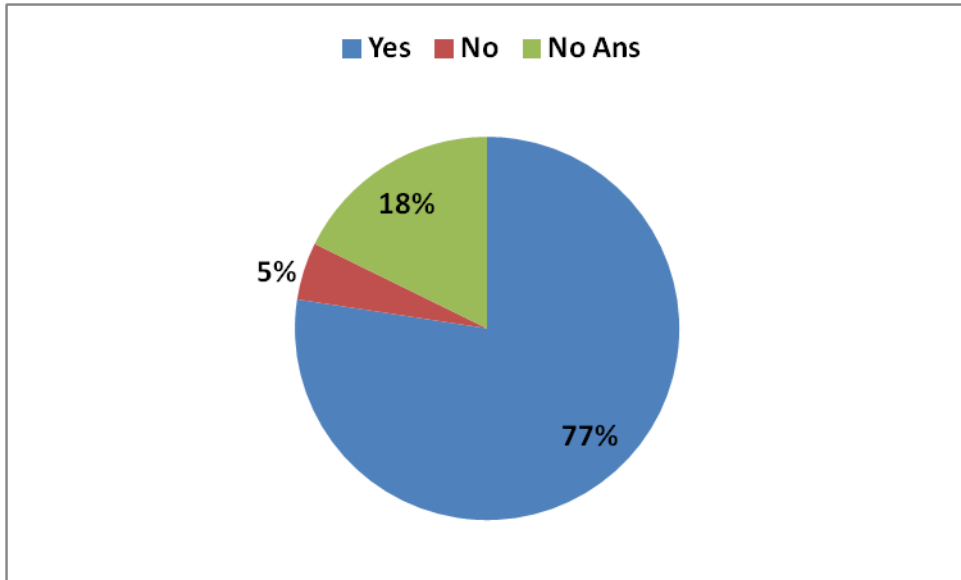
**Figure 5.3.5 Correction of mistakes in Home Work**

**5.3.5. Infrastructure of school**



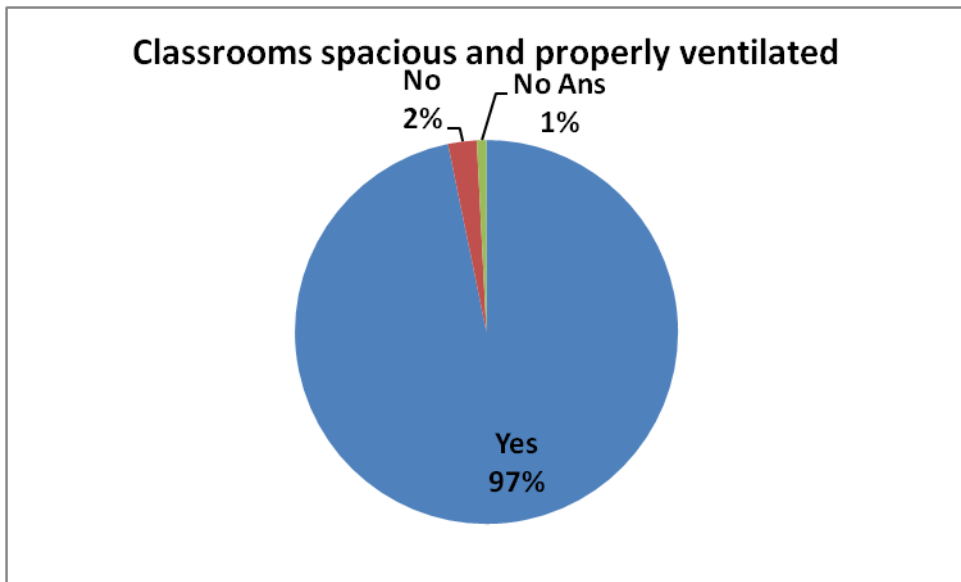
**Figure 5.3.6 Adequacy of School Infrastructure**

On asking about satisfaction with school building/ infrastructure almost all teachers were almost unanimous about adequacy of infrastructure. An overwhelming 93% teachers responded that they are satisfied with the building. Though past satisfaction data is not available but seeing recent development works on ground this overwhelming satisfaction seem current development. Similarly a majority of teachers were happy with staff room facilities. Administration is doing good work to maintain and build infrastructure.



**Figure 5.3.7 Staff rooms adequate**

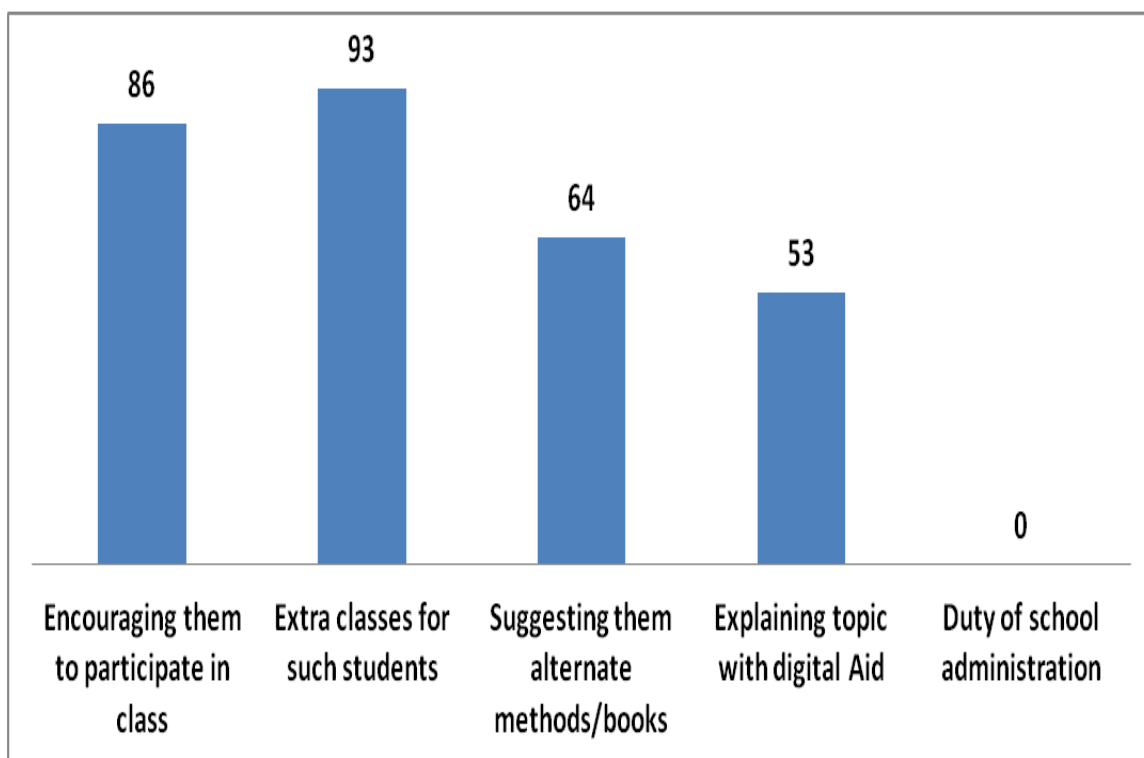
**5.3.6. Classrooms Spacious and Properly Ventilated**



**Figure 5.3.8 Classrooms Spacious and Properly Ventilated**

On asking about adequacy of classrooms barring few an overwhelming percentage of teachers (97%) expressed their consent with size of rooms and informed that these are properly ventilated and light arrangement is satisfactory.

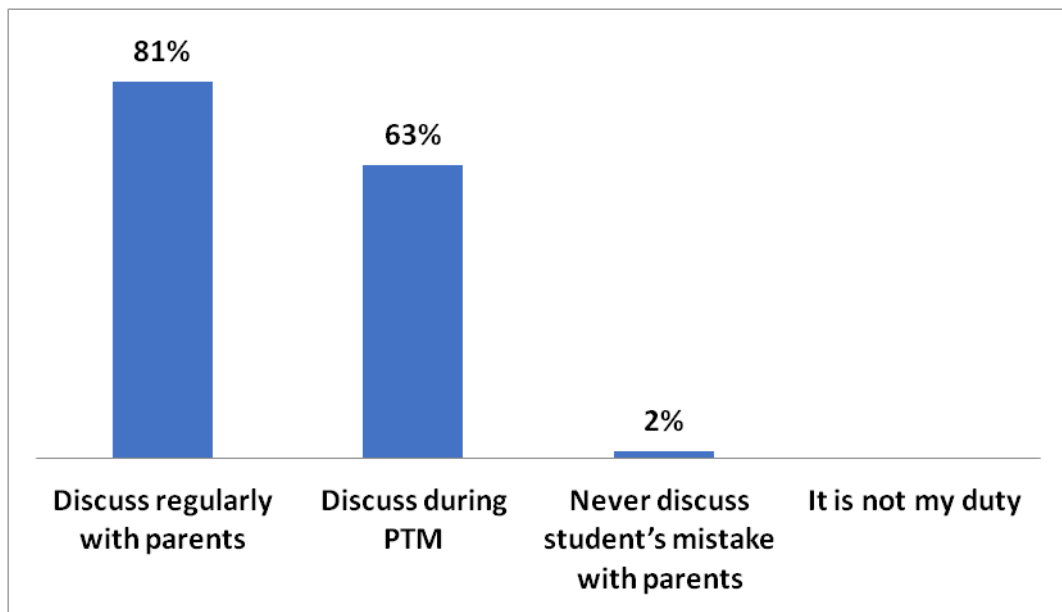
### 5.3.7. Motivation of weak students



**Figure 5.3.9 Motivation Method of weak students**

On asking about as to how do they motivate students, their answer was resort to extra classes. This was first choice of maximum teachers. Appx 75 % teachers agreed to take extra classes for the weak students. Not far behind, second choice was to motivate such students to participate more in class itself. Though, only 69% preferred it as a choice to consider.

### 5.3.8. Method of involving parents in development of child

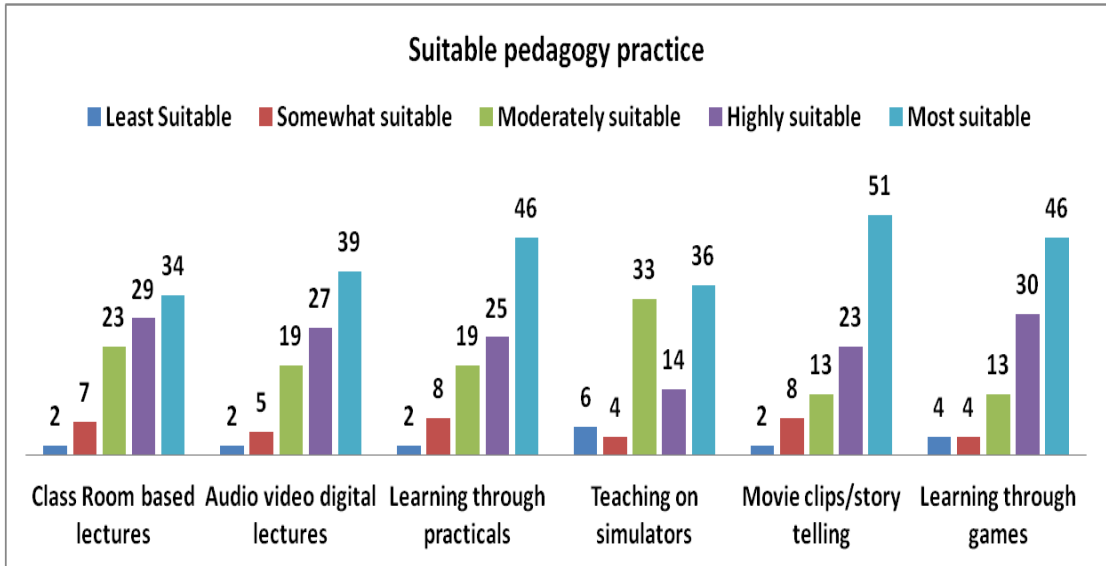


**Figure 5.3.10 Method of involving parents in development of child**

On asking whether they inform parents about their wards' progress, almost all agreed to involve parents in the overall development of their children. Only difference was that while 81% admitted to regularly discuss with parents about child's progress while 63% admitted to use PTM for the purpose. Though PTM is good forum to discuss childrens' issues but in current digital age, interaction with parents on regular basis is not difficult and teachers should be encouraged to use digital interaction with parents on regular basis.

### 5.3.9. Suitable pedagogy practice

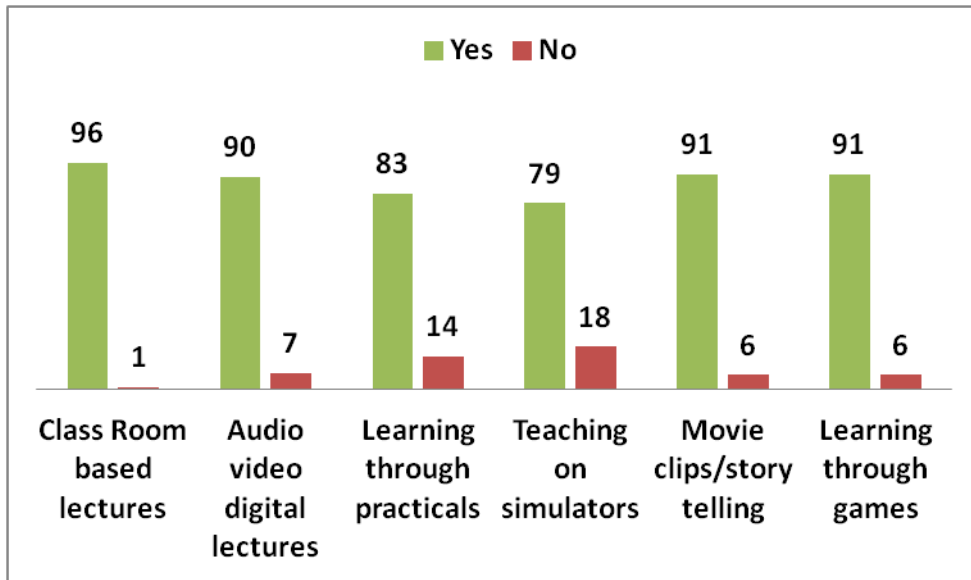
On asking about preference for pedagogy techniques to impart knowledge to students, it was surprising to note that chalk board based class room lectures were the least preferred medium of instruction by teachers. Learning through movie clips, games and practicals were more liked by teachers than classroom lectures which indicates their preference towards imparting knowledge in an entertaining mode rather than in serious mode of classroom lectures.



**Figure 5.3.11 Suitable pedagogy practice**

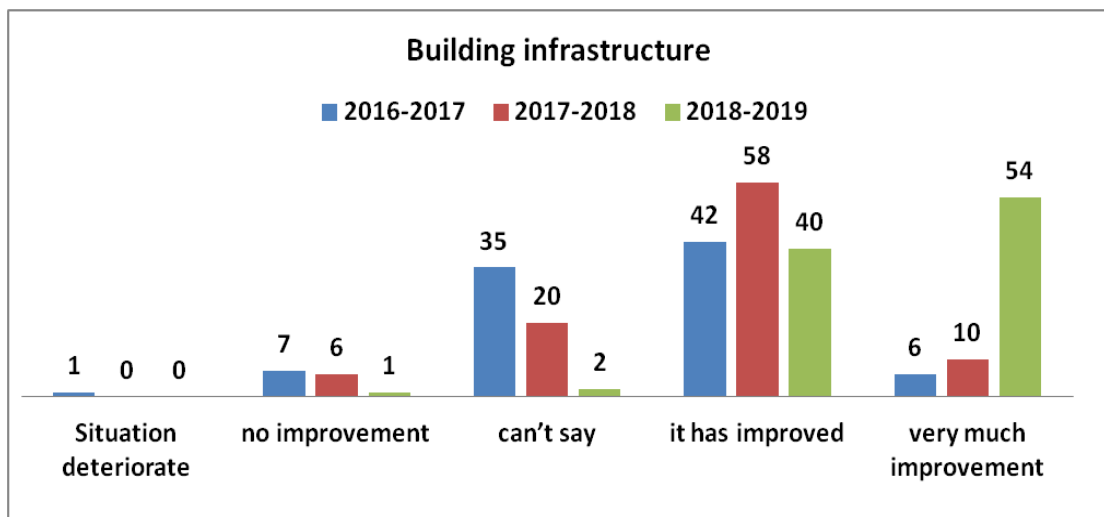
However, it was an irony that chalk board based class room lectures were the foremost medium being used in classes. Maximum teachers also admitted that classroom chalk board medium was being used mostly in schools. This aspect needs to be looked after and emphasis need to be given on medium liked by teachers and that should be adopted as well. Some mode needs to be developed wherein brainstorming regarding best techniques for imparting knowledge in consultation with experts and teachers can be resorted.





**Figure 5.3.12 Usage of pedagogy**

### 5.3.10. Comparison of school facilities in last 3 years



**Figure 5.3.13 Building infrastructure**

On asking about improvements in building infrastructures quantum in last years, maximum teachers responded that infrastructure has improved in last two years. It shows emphasis has been given consistently on improvement in infrastructure and it has produced good results on ground. Everyone right from principal to teacher to student and even parents are happy with the infrastructure.

### 5.3.11.Cleanliness of school building

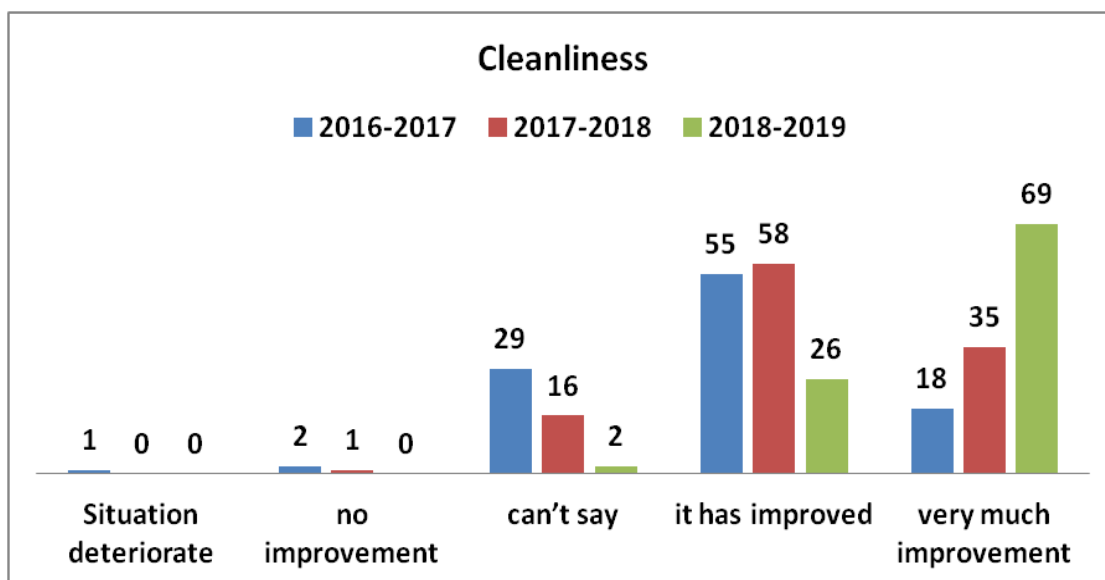


Figure 5.3.14 Cleanliness of school building

Maximum teachers agreed that overall cleaning of campus has improved considerably in last two years. Almost all teachers felt this improvement in these years as evident from their responses wherein 84% agreed that it has improved in year 2018-19 while 68% agreed that it has improved in 2017-2018. So it shows cleaning in schools is improving year after year and being taken seriously.

### 5.3.12.Performance of students

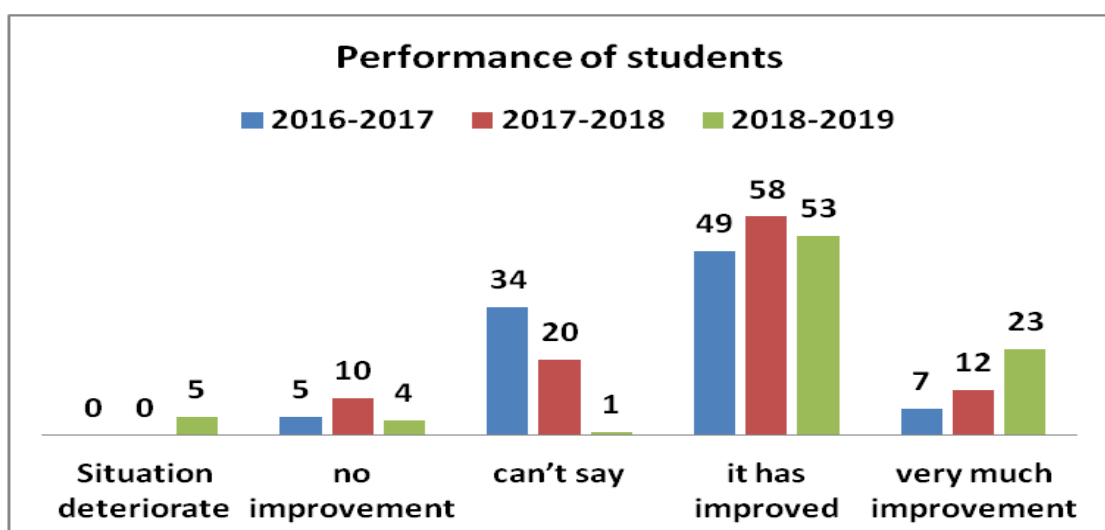


Figure 5.3.15 Performance of students

Maximum teachers agreed that overall performance of their students has improved considerably in last two years. Almost all teachers felt this improvement in these years as evident from their responses wherein 90% agreed that it has improved while 30% agreed that it has improved very much in last two years. So conclusively though performance of students has improved but it needs to be enhanced further from improvement to excellence.

### 5.3.17. Suggestions from teachers

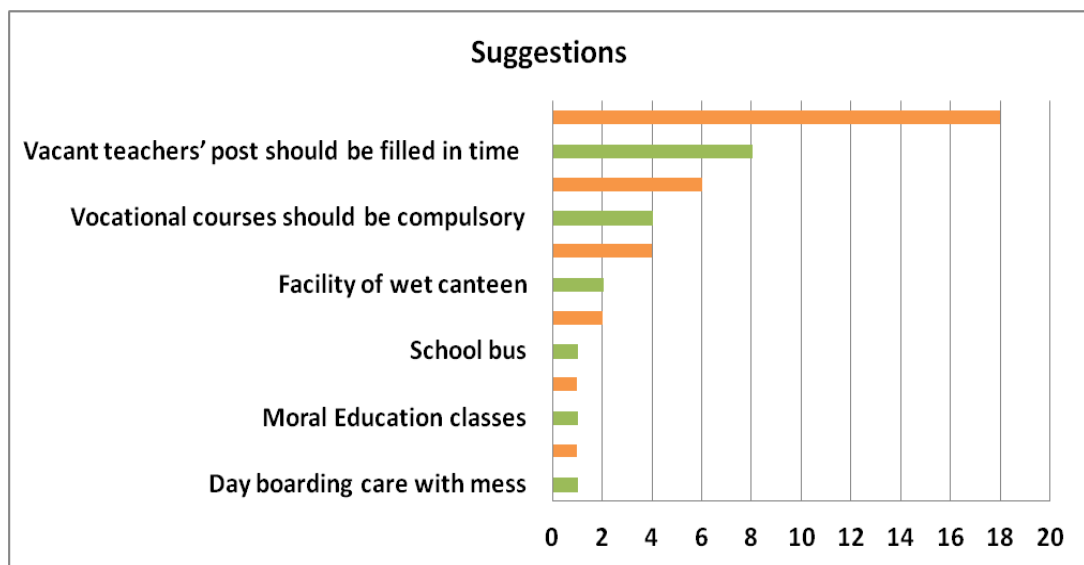


Figure 5.3.17 Suggestions

On seeking suggestions from teachers regarding ways of bringing about improvement of school, the most quoted suggestion was regarding filling up of vacant teachers post well within time to improve/ maintain student teacher ratio in the class room. Right to education act (RTI) mandates an optimal student teacher ratio of 30:1 while teachers intimated that it is exceeding 40 in certain classes. The solution to maintain student teacher ratio are two, either to restrict students number or increase teachers number. As government schools are imparting education for welfare of society not for profit hence restricting students entry will be difficult, therefore only viable option is to increase number of teachers and vacant seat should be filled at the earliest.

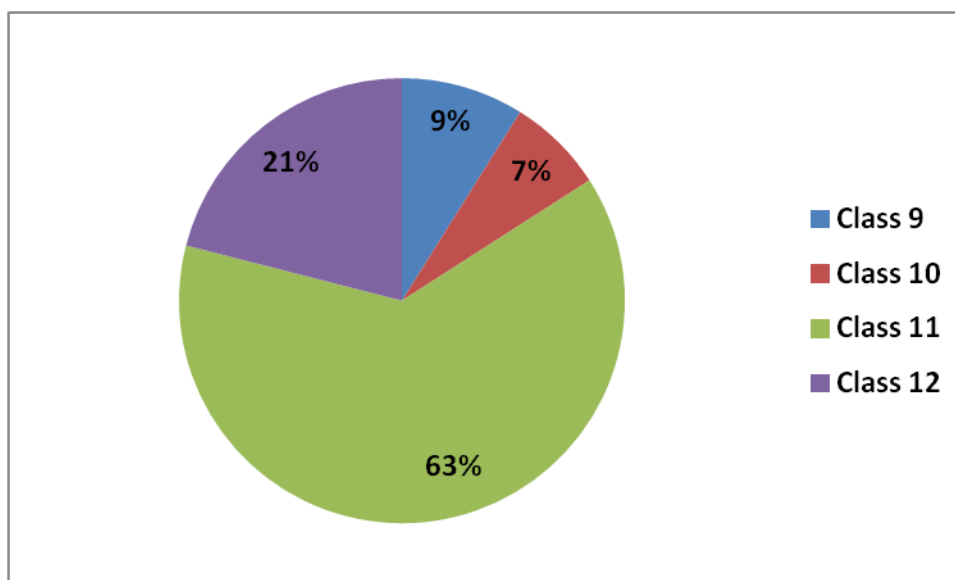
#### **5.4. RESPONSE ANALYSIS FROM STUDENTS**

*“I think it is possible for an ordinary person to choose to be extraordinary.”*

Elon Musk

Elon Musk quote reminds us that a student is just an ordinary person who has chosen to be extraordinary. Every student can do the same if he is groomed well. Schools have a very big role in shaping future of students, they are going to be there for majority of their childhood and teenage. Schools have a key role in what a child learns, how they act and shapes them into who they are, and who they will become. Childs are surrounded by all different kind of students at school, some their age, some older and younger. Students are surrounded not only with peers in school but also they are surrounded by different kinds of teachers, principals, and administrators and all have different standards and rankings. All these people are different in their cultures, religions, traditions and beliefs. Students are put into this environment where they will have to interact with all of these different set of people almost on a daily basis. In such circumstances schools have an added responsibility to groom their students in social sphere too, otherwise they will learn social traits at their own. Hence schools role increase many folds in addition to imparting curriculum knowledge to shape future leaders.

#### 5.4.1. Students' composition



**Figure 5.4.1 Students' composition**

A total of 157 student, 14 students from class IX, 11 students from class X, 99 students from class XI and 33 students from class XII participated in the survey across seven schools. Though we wanted maximum participation from class XII students but at the time of survey Secondary Board exam got started therefore class XII students couldn't be interviewed much as planned earlier. This shortcoming was somewhat covered by incorporating more of class XI students.

#### 5.4.2. Environment of the school

Maximum students were found to be happy with their school. An overwhelming 80% student found environment of school encouraging. Only 2% student found it boring. This result indicates that schools are making considerable efforts to engage students and making their daily routine encouraging to students.

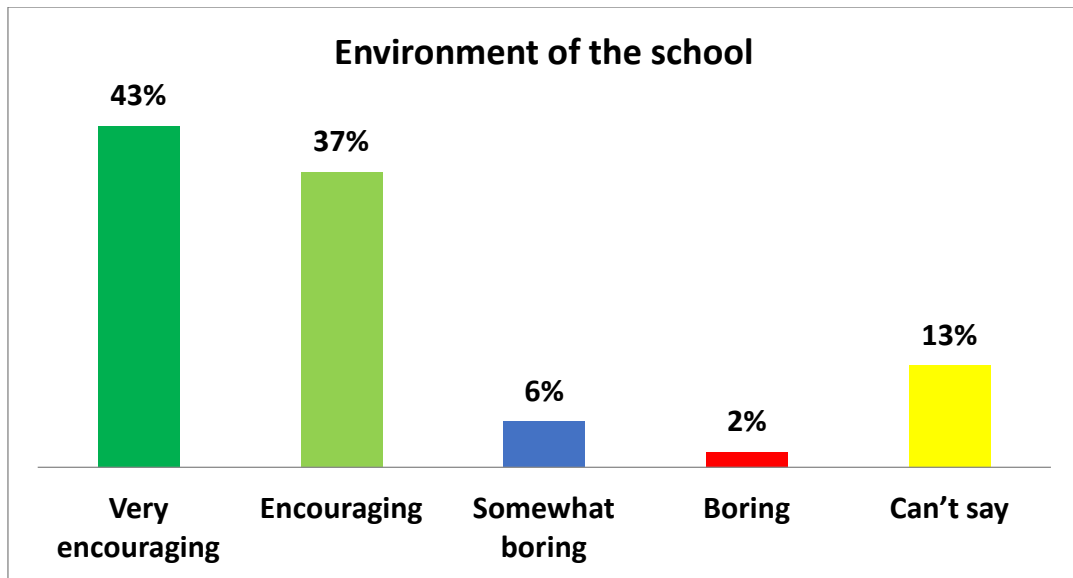


Figure 5.4.2 Environment of the school

### 5.4.3. Teaching standards

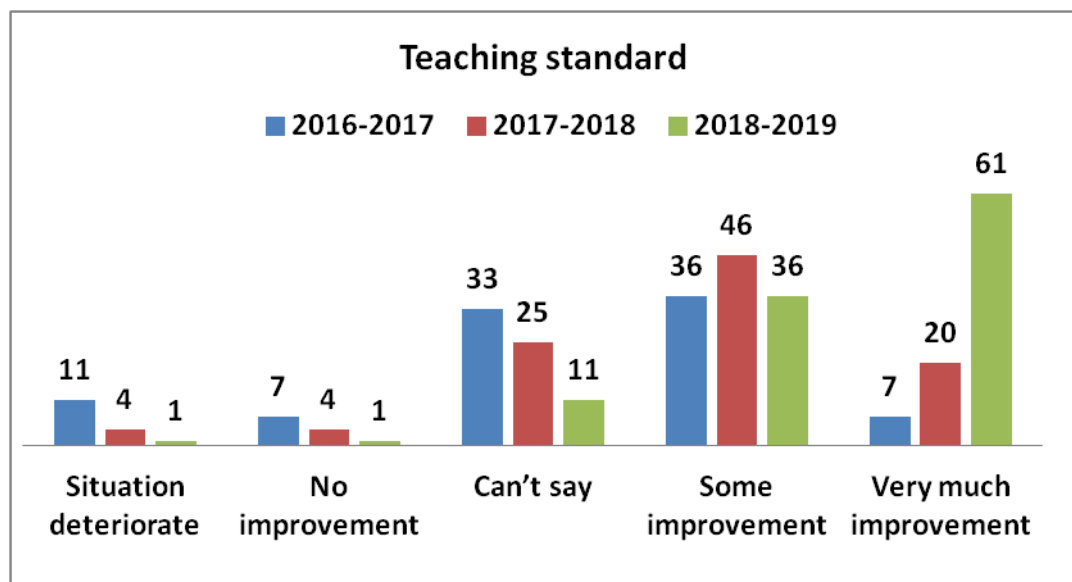


Figure 5.4.3 Teaching standard

A good percentage of students (62%) admitted that teaching standard has improved very much in 2018-19 compared to 46% student who intimated that teaching standard was some improvement in 2017- 2018. This indicates that there is gradual improvement in education standard year after year. Students are liking the improvement and feeling it on ground. This improvement in students' perception of

improvement in quality indicate improvement in quality of education which may be result of better training to teachers and better management of curriculum.

#### 5.4.4. Safety during Practicals

Practicals are vital for students. They are useful in understanding the theories and concepts of subject that can not be comprehended alone by text books. But working in labs alone are risky by the very nature of chemicals and lab experiments that are being conducted out there. But maximum students agreed that adequate staff was available in lab and they are briefed properly before the start of experiments. They also agreed that safety arrangements were adequate in the lab.

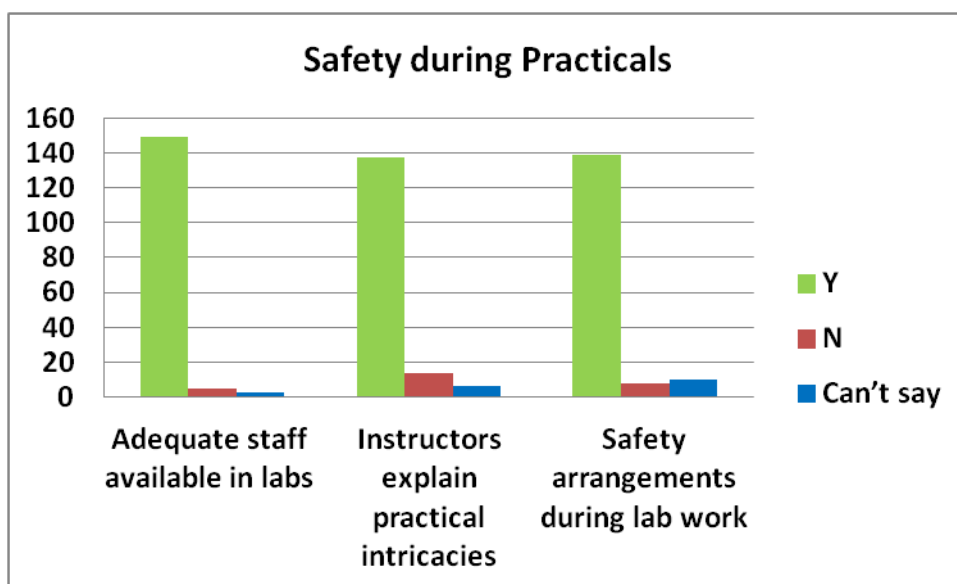


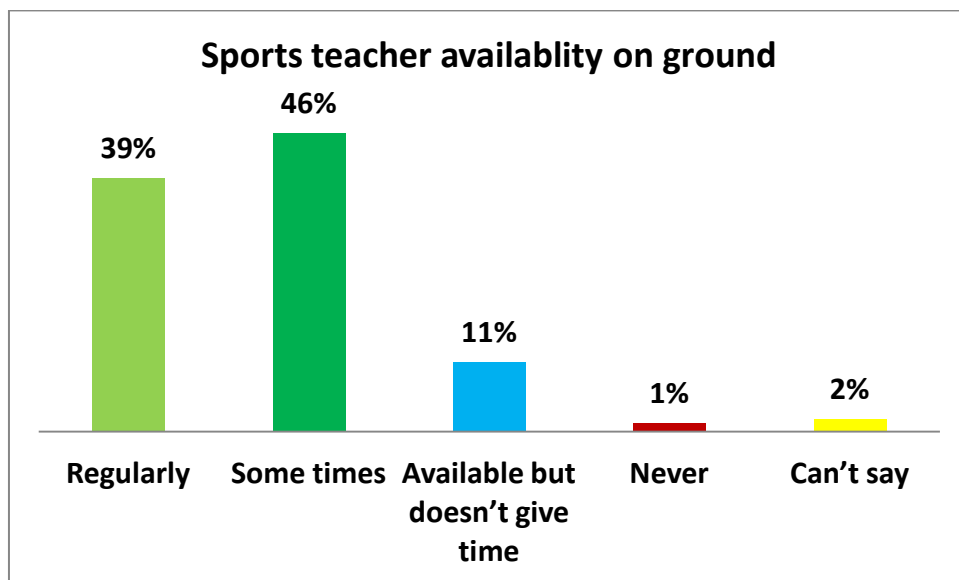
Figure 5.4.4 Safety during Practicals

#### 5.4.5. Sports teacher availability on ground

What can be learned on the ground cannot be learned in the classroom. Sports develop and enhance skills of students like strength, speed, endurance, agility, flexibility, control, balance etc. Sports today has also evolved as a form of entertainment and also offers promising careers. The importance of adopting sports and education for the success of youth development has been recognised by the Indian Government as

early as 1984 when the National Sports Policy recommended making sports and physical education an integral part of the school curriculum but the emphasis on sport education is lagging in schools generally and is customary only instead of taking it seriously to develop future sports personality.

During survey also same thinking pattern revealed out though sports teacher is on roll of school but he is not regularly available to guide students. A sizable strength of students (46%) admitted that sport teacher is not available regularly but some time only. Reason for the same may be overburden or lack of assistants. Sports is a specialised field and every stream of it need specific strategy and skills hence instead of generalised sports teacher, schools should recruit permanent assistants excelling in every sport separately to boost sports education in schools.



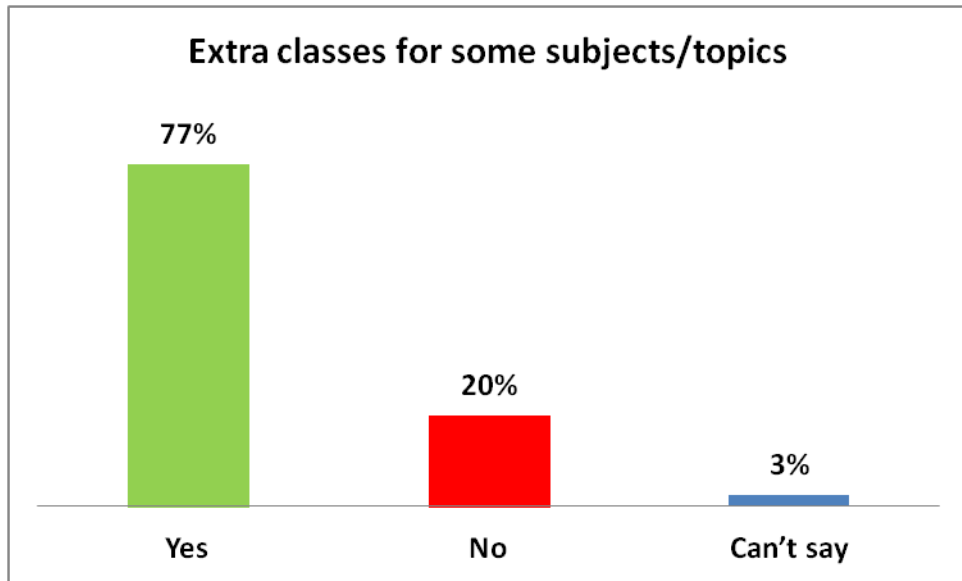
**Figure 5.4.5 Sports teacher availability on ground**

#### **5.4.6. Extra classes for some subjects/topics**

A majority of students 77% admitted that extra classes are being organized for them. Only 20% said no extra classes are being held and only regular classes are being organized. As survey spanned classes from 9 to 12 and schools admitted that



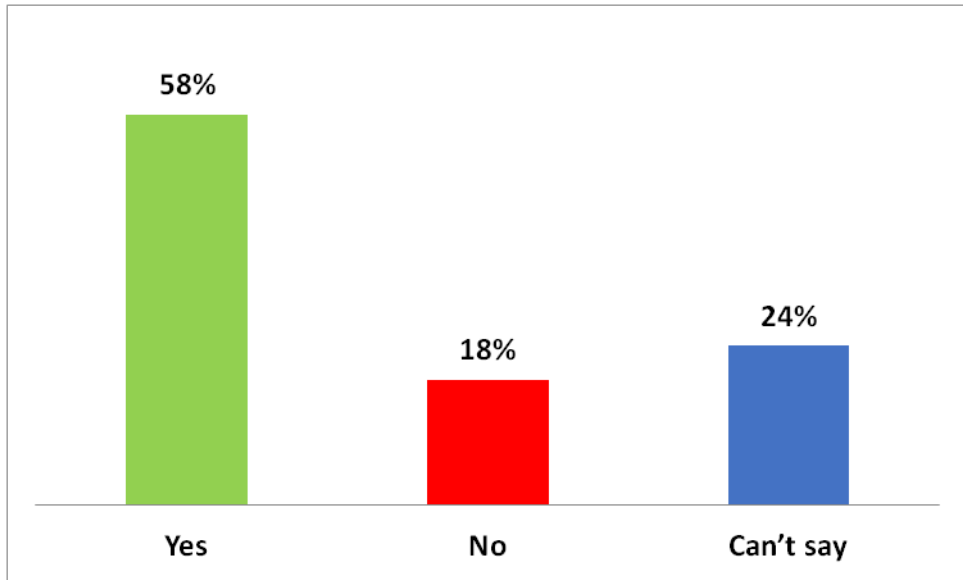
prime focus is board exams hence these 20% may be from other classes. Admission of 76% student about extra classes is indication of administration's interest in learning of topic by all students.



**Figure 5.4.6 Extra classes for some subjects/topics**

#### **5.4.7. Toilets of school**

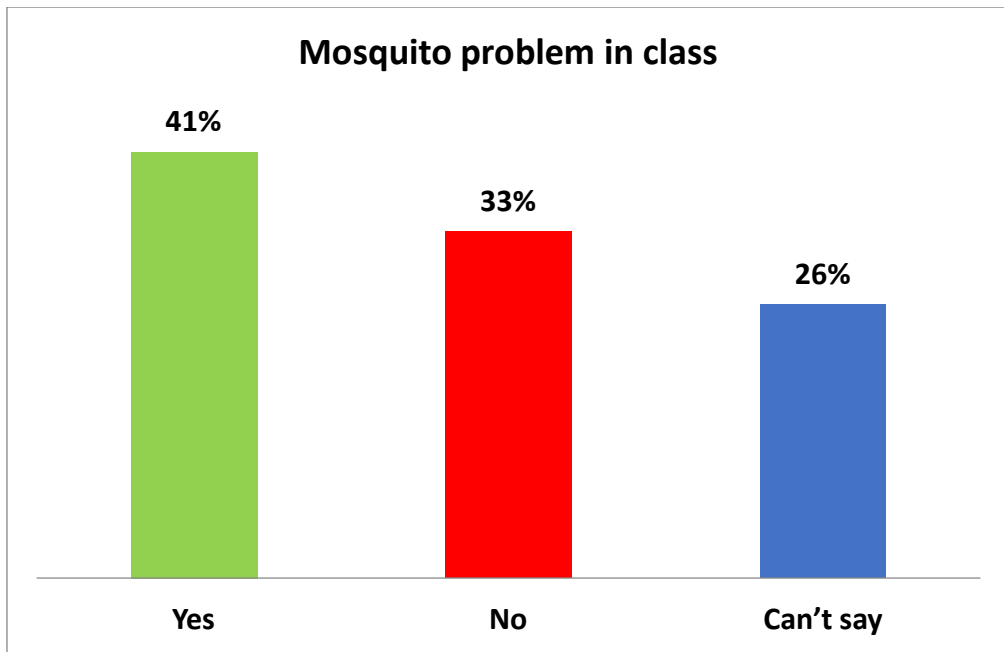
On asking about cleanliness status of toilets, more than 50% students said they are happy with cleaning standards of toilets but 18% students also felt that toilets were not clean and during survey some students intimated that cleanliness improves when somebody visits school. So there is overall satisfaction over cleanliness and there may be few incidences when cleaning staff may not have been able to clean due to preoccupation somewhere as cleaning is ongoing continuous process and stakeholders also need to be aware about their duties of right usage.



**Figure 5.4.7 Cleanliness of Toilets**

#### **5.4.8. Mosquito problem in class**

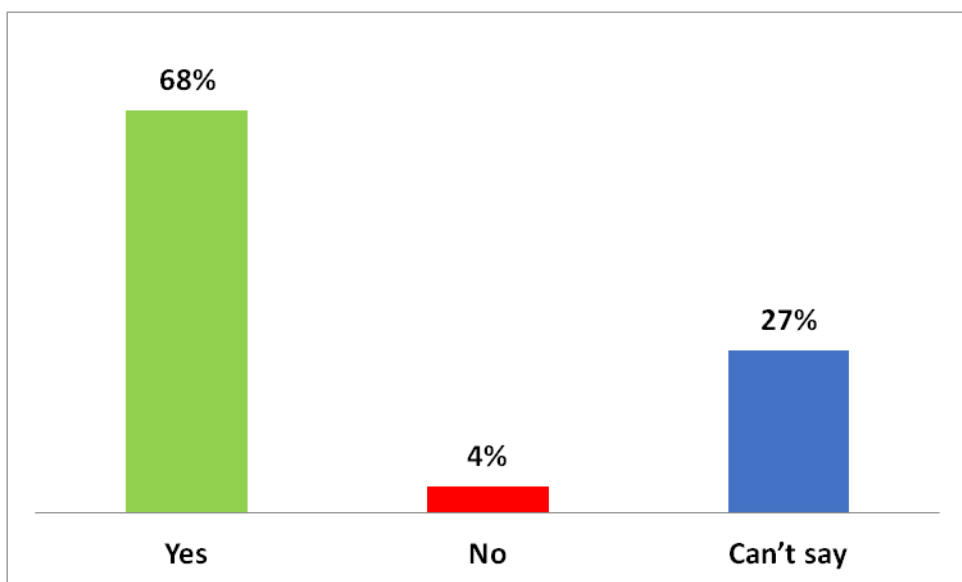
A majority of students of students admitted that there is mosquito problem in the class room. Though principals of school admitted to take measures to check the problem but from responses of students it is evident that these measures are not effective on ground and administration needs to look upon other methods to check the menace. One such measure that is quite effective in arresting local menace of mosquitos is provision of wire meshed doors and windows in addition to checking of pooling of waste water in campus.



**Figure 5.4.8 Mosquito problem in class**

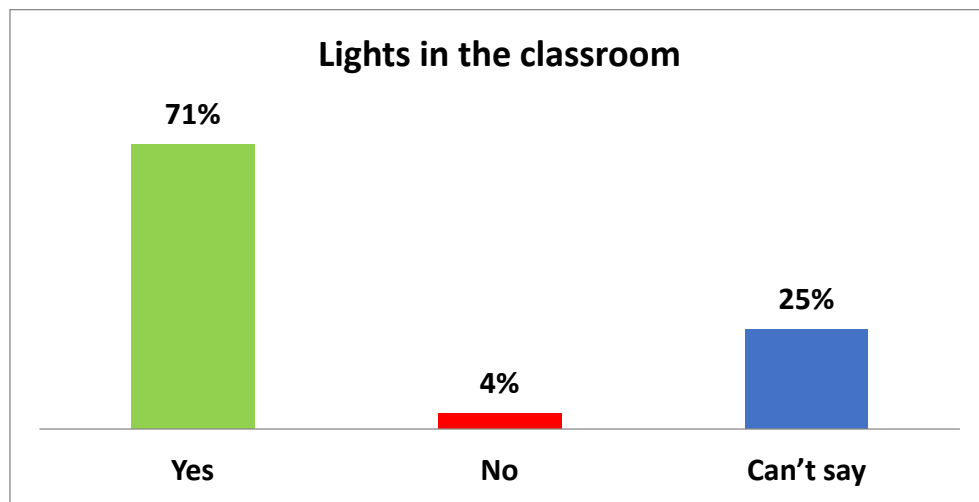
#### **5.4.9. Classrooms**

Majority of students found their classrooms well ventilated and spacious. While 68% found classroom spacious, 27% couldn't say anything about it which may be taken as they don't find any difficulty with the present setup. So overall classroom amenities seem acceptable.



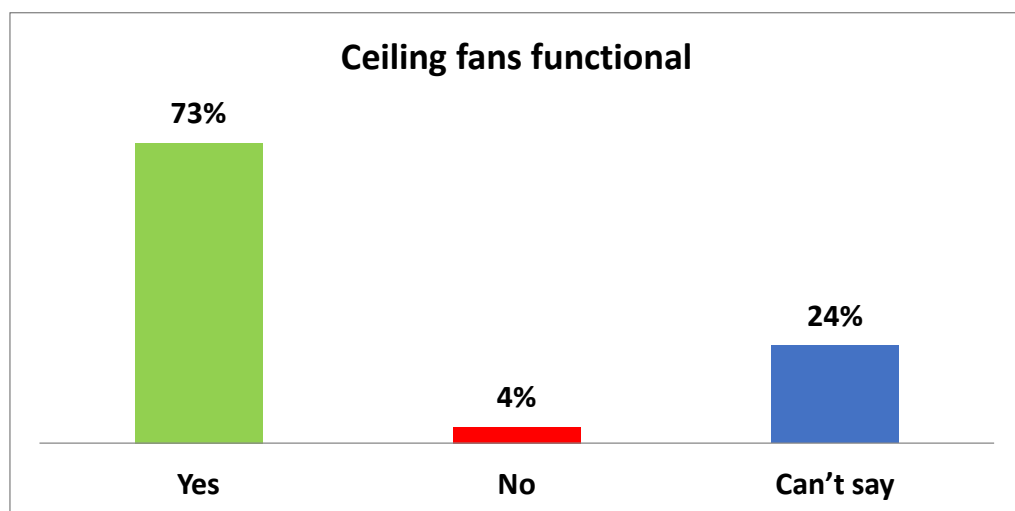
**Figure 5.4.9 Classrooms spacious and ventilated**

Similarly a maximum students (71%) were found to be happy with the lighting arrangement in the classroom (refer fig 5.4.10).



**Figure 5.4.10 Lights in the classroom**

Similarly 73% students found ceiling fan adequate in the classroom. Only a negligible percentage of students 4% found ceiling fan non functional/inadequate.



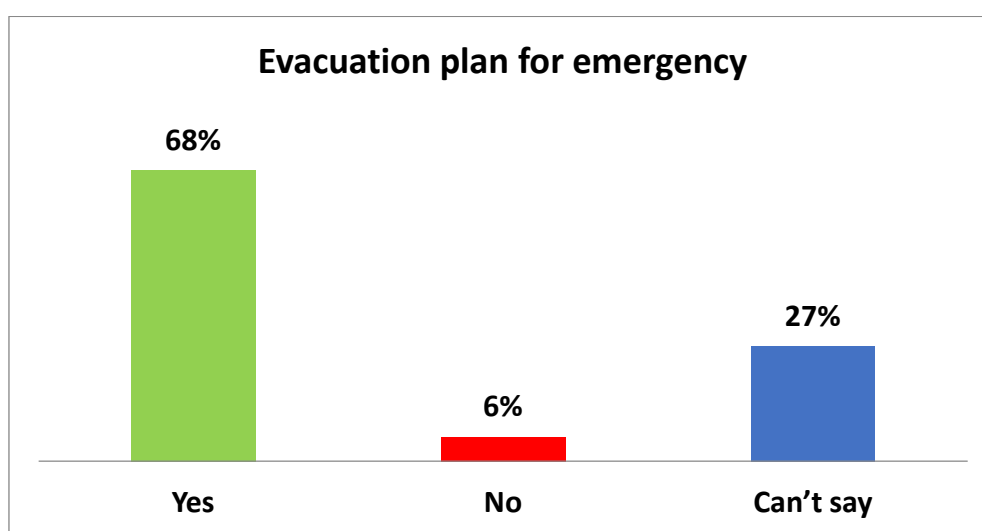
**Figure 5.4.11 Ceiling fans functional**

By overall assimilation of all these three indicators, it appears 70% students are happy with their classrooms. As every student passes maximum time of his

schooling in classrooms only therefore all these indicators are healthy sign for a school.

#### **5.4.10. Evacuation plan for emergency**

Though a majority of students (68%) admitted to have exercised evacuation plan during emergency but worry is equal number of no sayers and cant sayers as these two together form a sizable portion of 33%. Any evacuation plan will fail if its one third (1/3) constituent don't know about the plan. Hence more exercises frequency and involvement is necessary to make the plan successful.



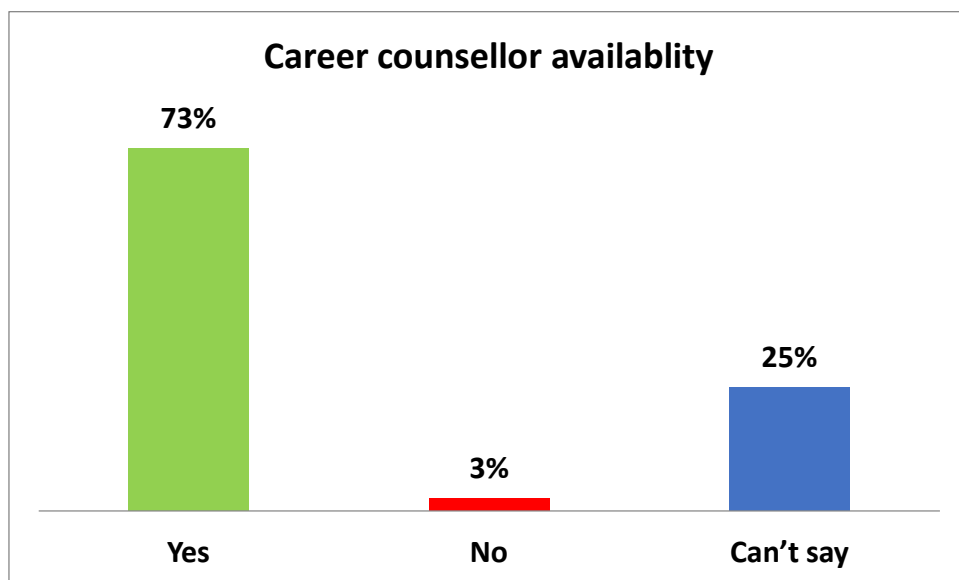
**Figure 5.4.12 Evacuation plan for emergency**

#### **5.4.11. Career Counsellor Availability**

Research findings indicate that the major reasons for school drop-outs in the secondary and higher secondary levels are poor economic conditions of the family and livelihood related issues. There are various other reasons as well, including poor school experiences and other social stigmas. Youth who drop out at the secondary and higher secondary levels do not even have a minimum level of understanding about career planning and skill acquisition and end up doing unskilled work in order to provide some financial support to their family. Career

Guidance and Career Planning exercises would impact these youth in two major ways: a) to help them understand their interests and aptitude and thereby choose appropriate career opportunities and b) to link them with appropriate skills training to join a skilled workforce and access better livelihood opportunities. It may also help those youth, who drop out from school feeling current education is not going to help in their employment after secondary education, in returning to schools and continuing their education.

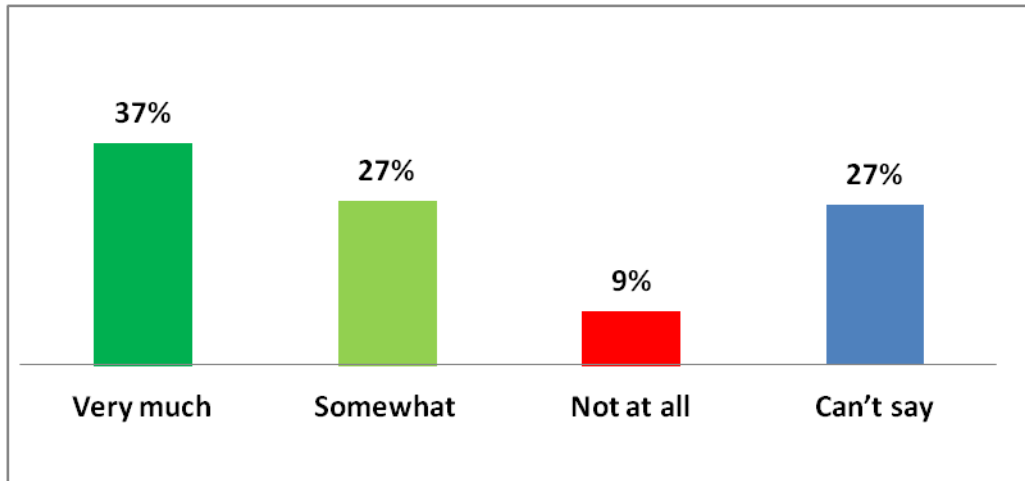
A majority of students (73%) admitted availability of career counsellor in the school but the students who were not aware of career counselor presence in school were also sizable, if we include students saying no and students saying cant say, this population rises to 28%. Career Counsellor is an important in school and can play a major role in deciding future of students, his/ her presence and impact should be known by every student.



**Figure 5.4.13 Career counsellor availability**

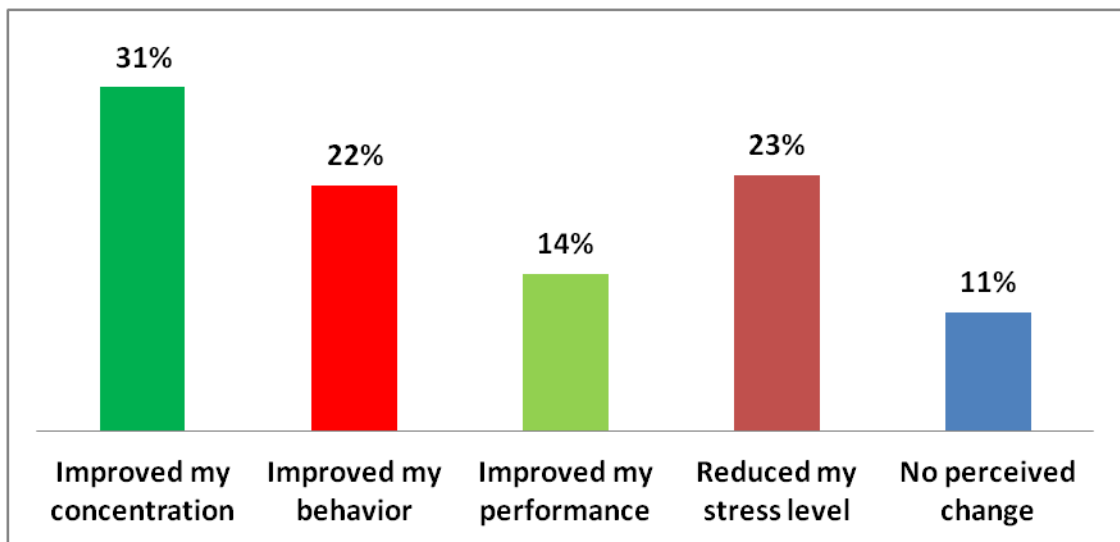
### 5.4.12. Impact of Happiness Classes

Introduction of happiness classes in school is a noble concept of government but only 64% students considered it effective. Rest 27% students were not sure about its effectiveness and similarly 9% found it not effective at all.



**Figure 5.4.14 Overall impact of happiness classes**

Students, who found these classes effective were asked how these classes has helped them to achieve. The widest choice was these classes has improved their concentration in classes and second choice was to reduce stress level. On the contrary, fewer students 11% felt no change in any parameter.



**Figure 5.4.15 Impact of happiness classes**

### 5.4.13. Teaching method suitability

On asking which teaching method they like most, the maximum students liked games and practicals much more than chalk board lectures. Equally good percentage of students liked education through movie clipping/ stories. The result reveals that dynamic modelling is more appealing to students than static lectures.

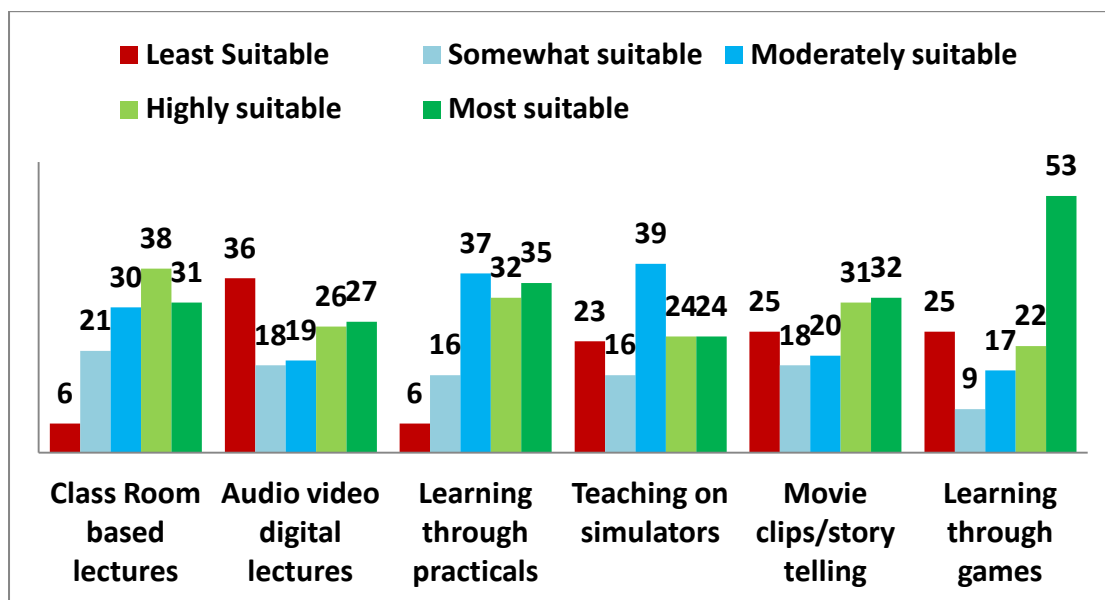


Figure 5.4.16 Teaching method suitability

But in practice it was different, 98% student admitted that classroom chalk board lectures was predominant choice in classes to impart knowledge. Schools should explore more audio visual contents over classroom lectures to improve grasping of students as multi media experience increases grasping more.



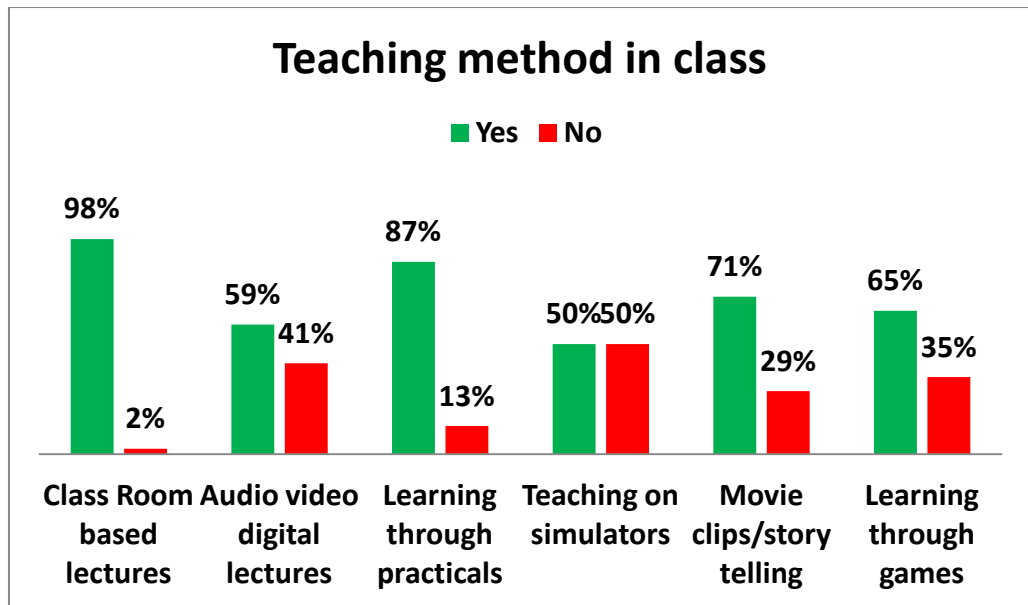


Figure 5.4.17 Teaching method in class

#### 5.4.14. Comparison of school facilities in last 3 years

On asking about improvements in building infrastructures quantum in last few years, maximum students like teachers responded that infrastructure has improved a lot in last two years. It shows emphasis has been given consistently on improvement of infrastructure and it has given good results on ground. Everyone right from principal to students and even parents are happy with infrastructure.

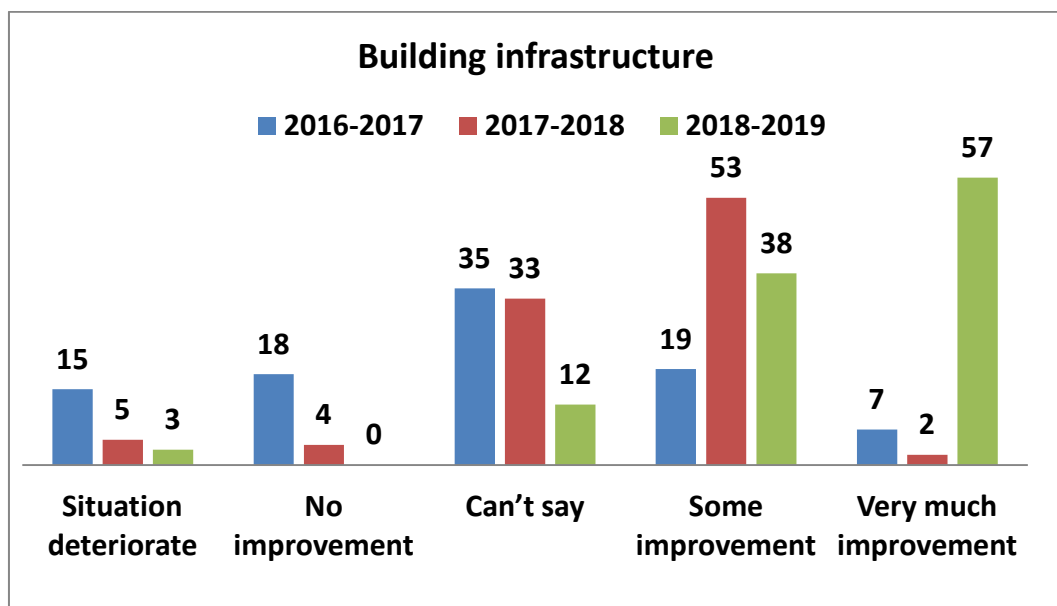


Figure 5.4.18 Building infrastructure

Maximum students agreed that overall cleaning of campus has improved considerably in last two years. Almost all students felt this improvement in these years as evident from their responses wherein appx 90% agreed that it has improved in year 2018-19 while 65% agreed that it has improved in 2017-2018. So it shows cleaning in schools is improving year after year and being taken seriously.

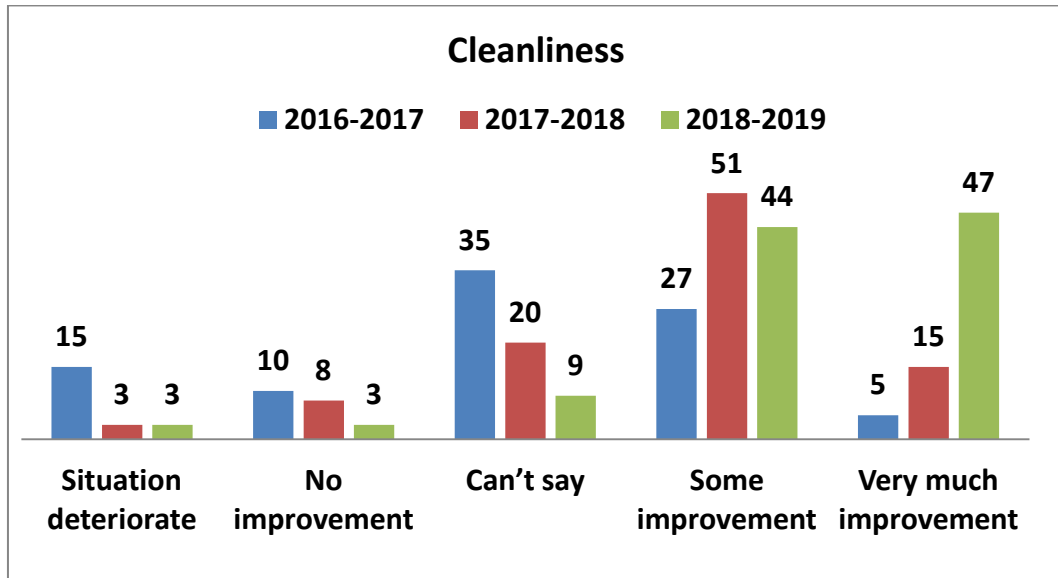


Figure 5.4.19 Cleanliness

Maximum students agreed that overall performance of their classmates has improved considerably in last two years. Almost 90% students felt their classmates' performance improved in 2018-2019 while only 60% have same feeling for last year ie 2017-2018. Hence results reveals that students feel that their class performance is improving year after year.

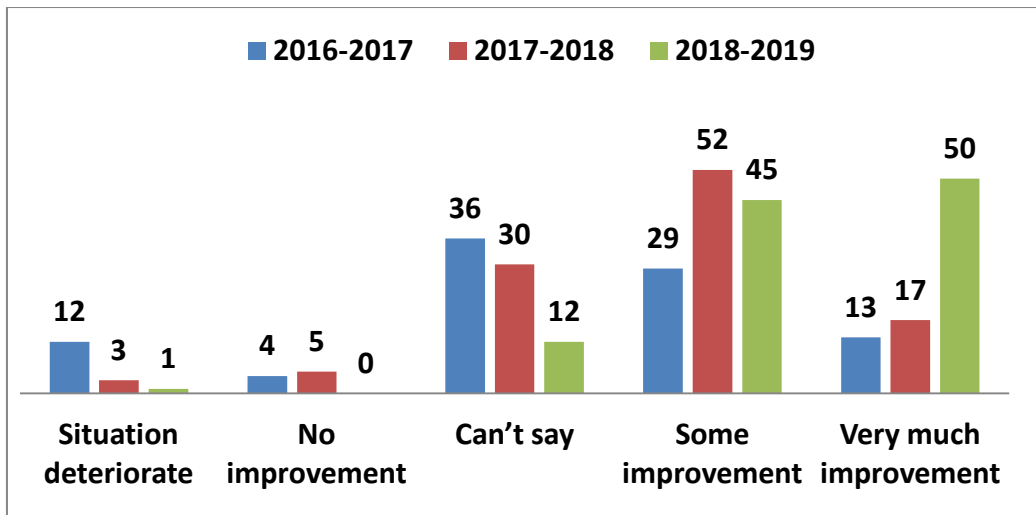


Figure 5.4.20 Performance of your class mates

#### 5.4.14. Suggestions

On seeking suggestions from students regarding improvement of school, the most quoted suggestion was increase of audio visual digital content in lectures. At present in schools predominant mode of dissemination of education is use of chalk boards. This should be gradually replaced with white boards wherein teacher can use multi color pens and same can be used as projector screens also for displaying audio visual digital contents in a cost effective manner. Similarly students should be allowed to join for more vocational courses like dancing, singing.

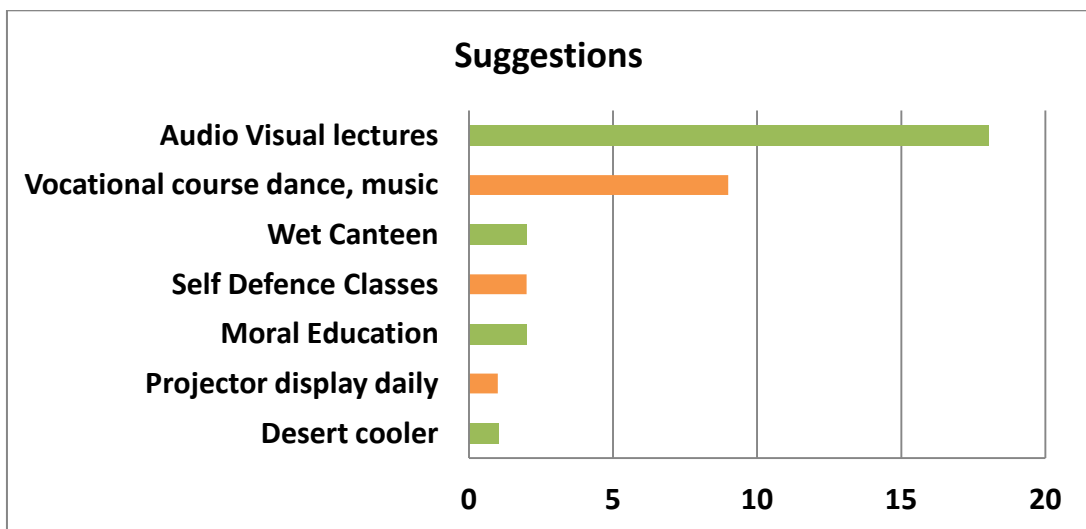


Figure 5.4.21 Suggestions

## **5.5. RESPONSE ANALYSIS FROM PARENTS**

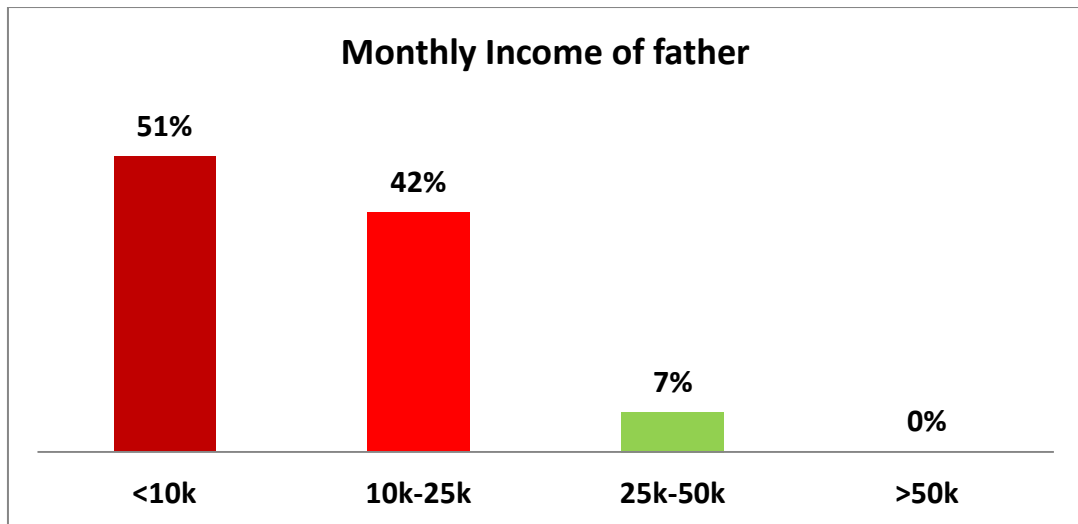
*“Education is a shared commitment between dedicated teachers, motivated students and enthusiastic parents with high expectations.”*

Bob Beauprez

While parents play the role of a teacher for their child for the first few years, their prime responsibility revolves to make their child a smart, confident and respectful individual. However, there comes a time when they need to broaden their horizon and have to involve schools. While the prime responsibility of a school is to focus on academics, their job doesn't end there. When a child goes to a school, the staff, students and even the environment play a significant role in shaping up the personality and parents are expected to help environment to groom their children.

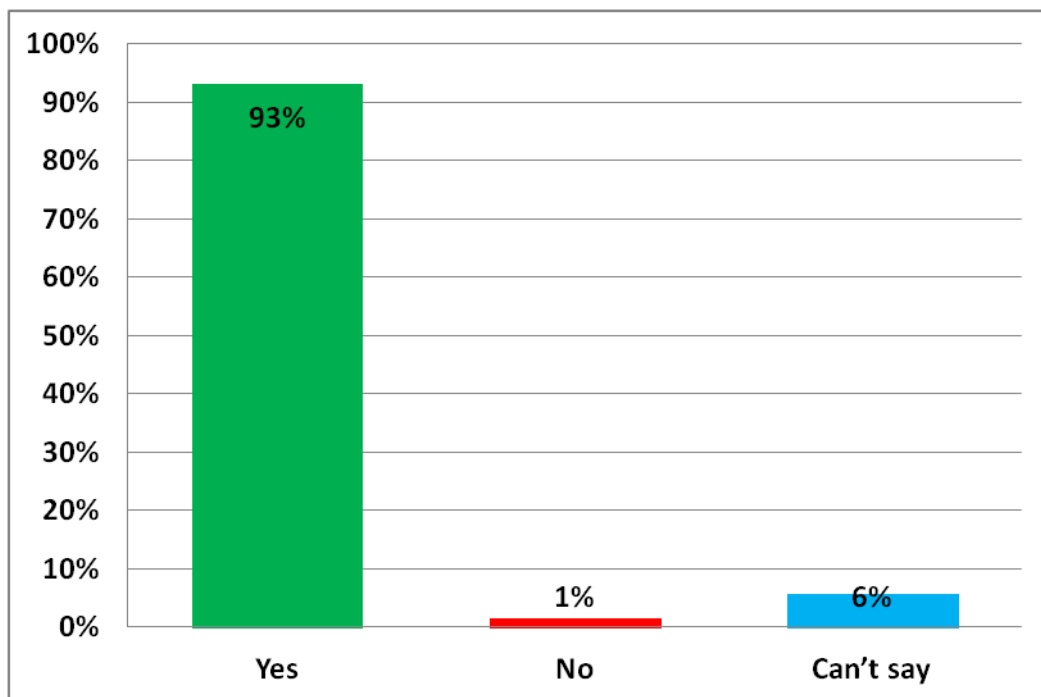
### **5.5.1. Parents' composition**

The economic background of maximum parents of students studying in Government schools is very poor. They are engaged in low paying professions like sweeper, gardener, tailor, chowkidar, painter, mechanic, cook, driver etc. If we see monthly income figure 5.5.1 it reveals more than 50% are earning less than Rs 10000.00 per month. 42% of the parents income was between Rs 10000.00 – Rs 25000.00 per month and a meager 7% of parents income was between Rs 25000.00-Rs 50000.00 per month. No parent was earning more than Rs 50000.00 monthly. With so meager salary it will be difficult for parents to send their wards for education. If they are sending their wards to school despite of their meager salary, they must be having high hopes from them and it is duty of country to educate them to develop high standards.



**Figure 5.5.1 Monthly Income of father**

### 5.5.2. Satisfaction with progress of your child



**Figure 5.5.2 Satisfaction level with progress of your child**

On asking parents whether they are satisfied with progress of their child in school. An overwhelming percentage of parents (93%) replied that they are happy with their child's progress in school.

### 5.5.3. PTMs attended in last year

On asking about how many PTMs they have attended last year in order to gauge their involvement in child's progress in school, majority of them (53%) admitted to attend each and every PTM conducted by school during last year. Another 31% agreed to miss only one odd PTM. The survey shows fair involvement of parents towards their ward's progress and desire to be associated with their development.

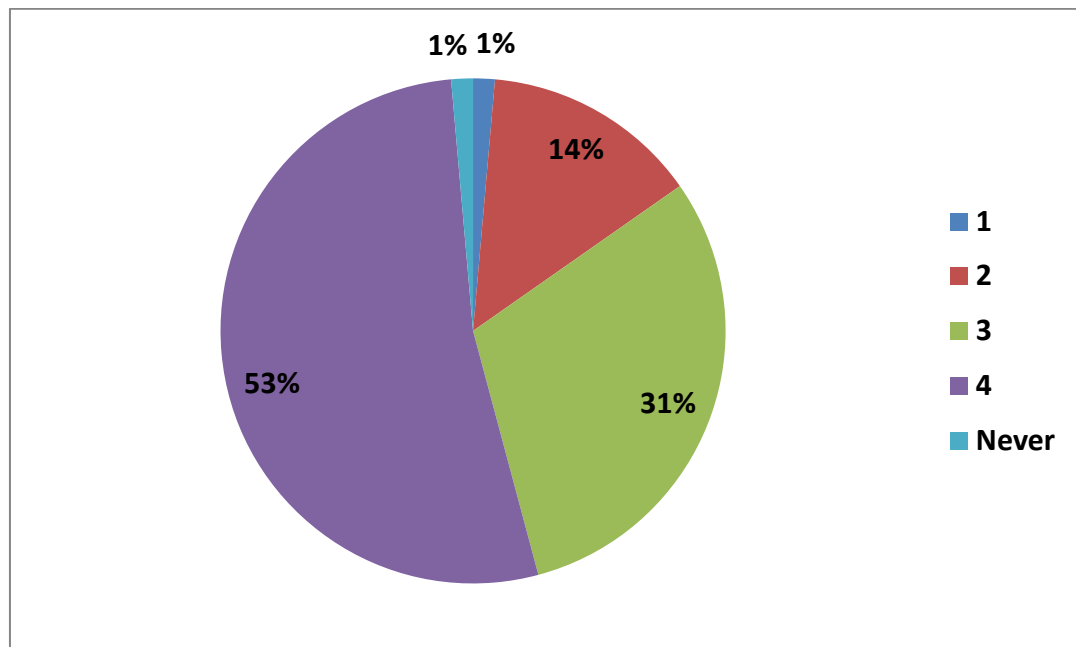
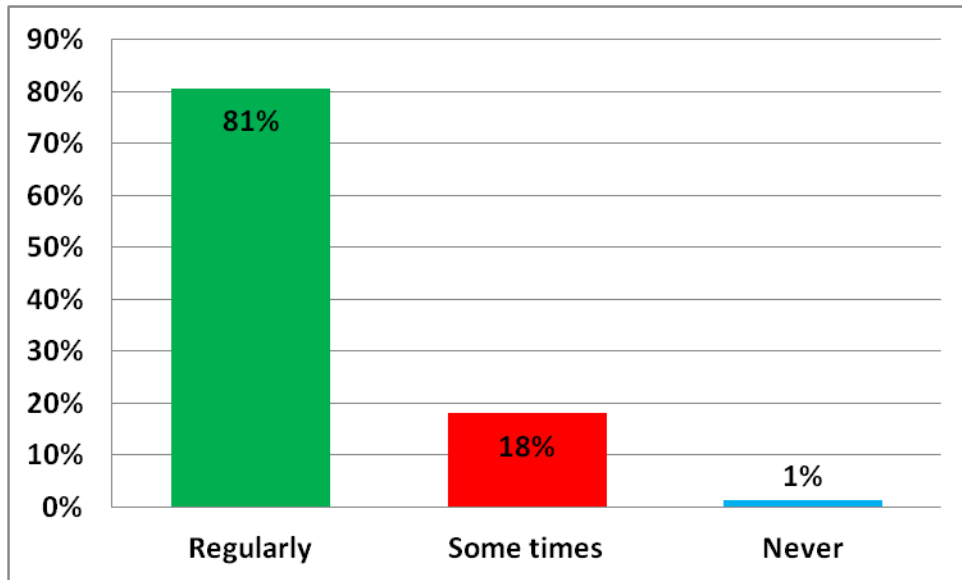


Figure 5.5.3 PTMs attended last year

### 5.5.4. Child's Progress

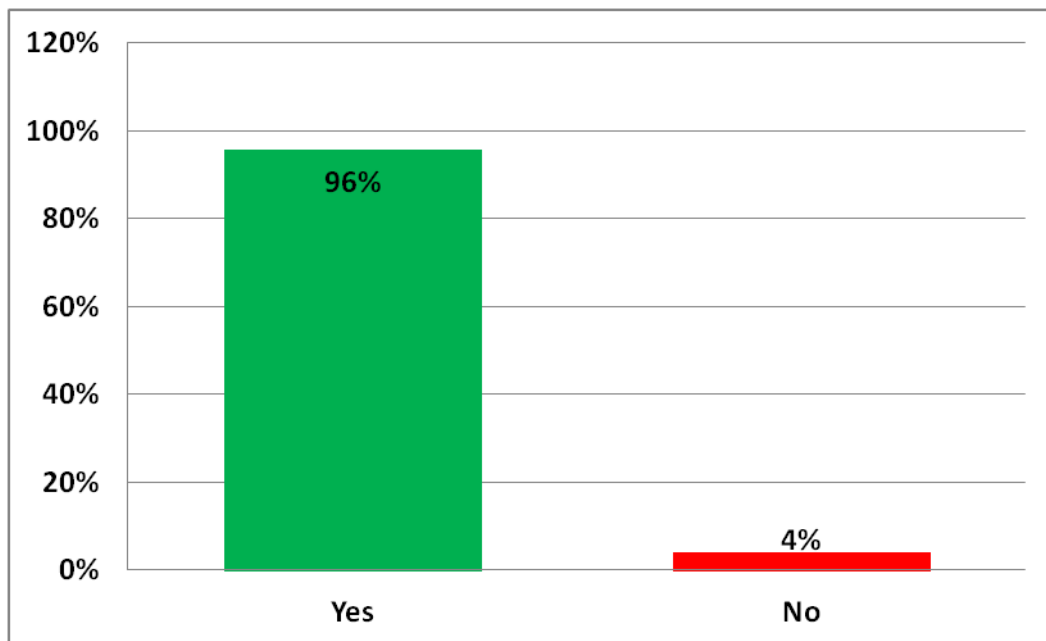
Parents intimated that teachers regularly intimate them about their ward's progress in the school. 81% parents were happy with their regular involvement in their ward's progress. Only 18% parents admitted that teachers don't involve them regularly but intimate or interact with them only on some occasions. Overall results projects a healthy trend being maintained at schools.



**Figure 5.5.4 Information about child's progress**

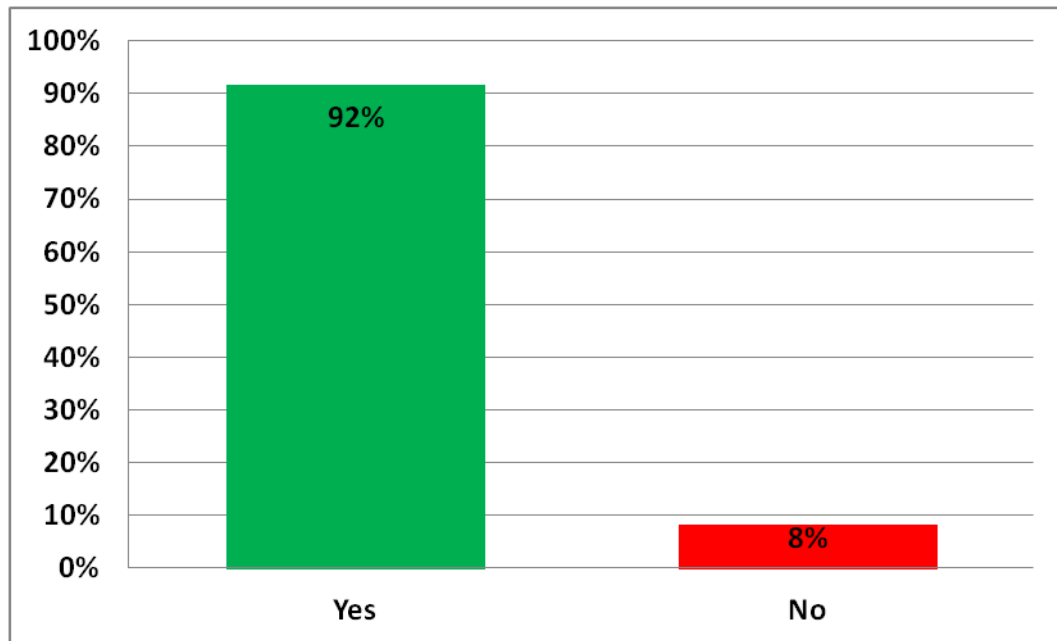
**5.5.5. Improvement in school infrastructure**

On enquiring about improvements in school infrastructure, an overwhelming percentage (96%) agreed that there is significant improvement in school infrastructure. Only 4% parents said no this statement.



**Figure 5.5.5 Improvement in school infrastructure in last two years**

Similarly on asking about classrooms facility, an overwhelming (92%) parents found their ward's classrooms spacious and well ventilated. Only 8% did not agree with majority.

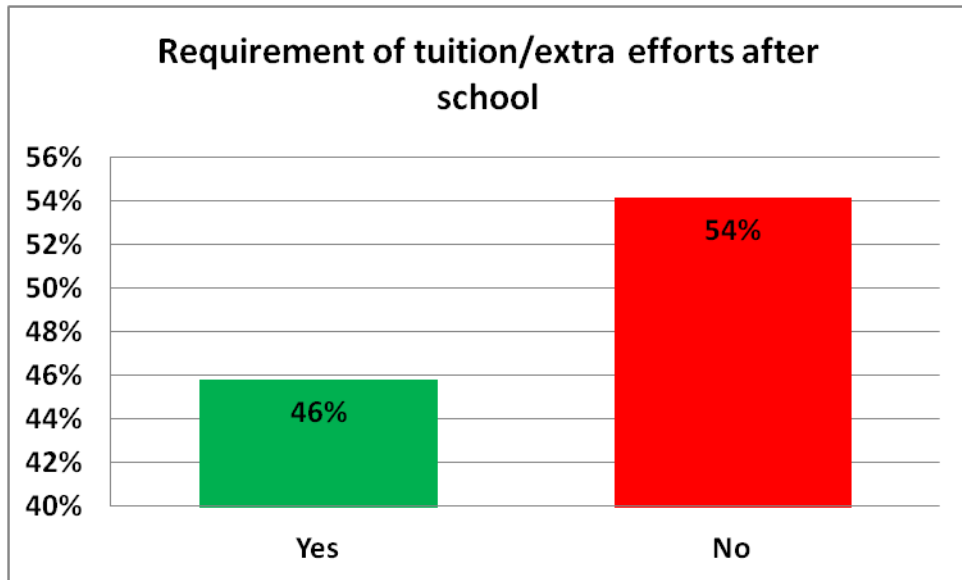


**Figure 5.5.6 Classrooms spacious and ventilated**

### **5.5.6. Requirement of tuition**

On asking about whether their wards need tuition classes to understand concept after school, 54% parents said that they don't feel such requirement but equally strong other 46% parent felt that their wards need to be given extra tuitions to supplement their studies. This trend indicates that weak students are not able to pull along with sharp students and they have to resort to tuitions but seeing low income profile of parents of students, this will be unnecessary burden on their already low income. Schools need to devise measures to further improve weak students.

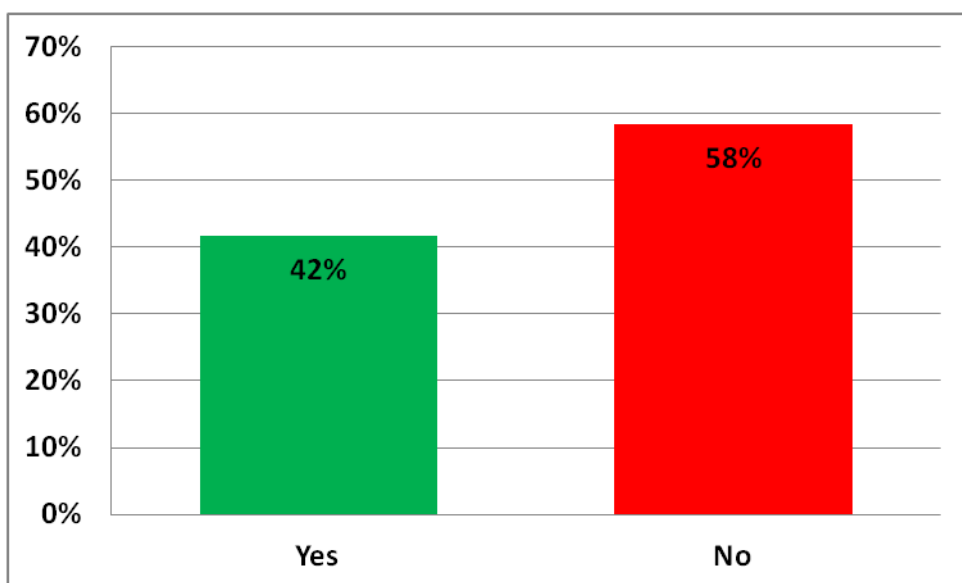




**Figure 5.5.7 Requirement of tuition after school**

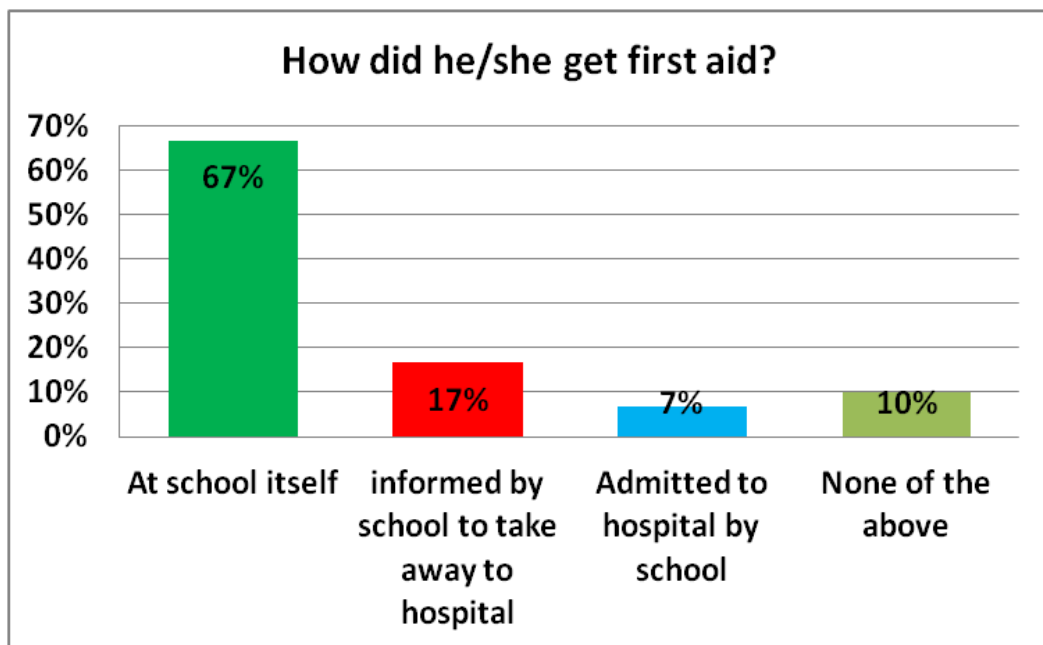
### 5.5.7. Child Safety at School

During survey it was asked whether their ward was ever got hurt or felt sick at school and how he got treated in order to assess safety features/ standards at school. 58% parents intimated that their child never got hurt/ sick at school. However 42% parents intimated that their child got hurt/ sick at school (figure 5.5.8).



**Figure 5.5.8 Child ever get hurt/felt sick in school**

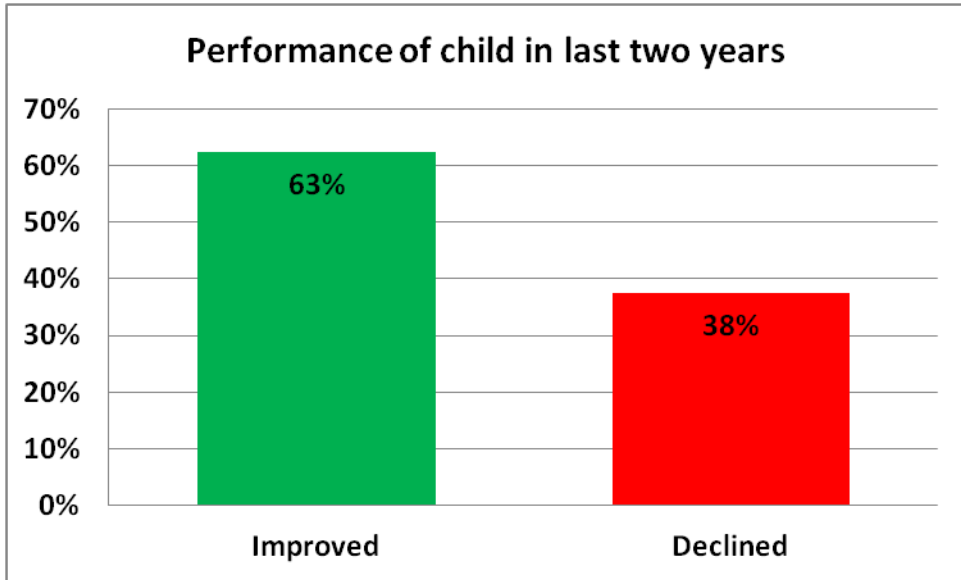
The parents, who reported sick child at school, were further asked way of handling this situation by school. A majority of parents (67%) intimated that their child got medical aid at school itself. However a sizable 17% intimated that they have to carry child on their own to hospital after information from school. Barring these aberrations overall result seems healthy where majority of children were not hurt at school and even those who got hurt at school, majority of them were treated at school itself.



**Figure 5.5.9 How did he/she get first aid?**

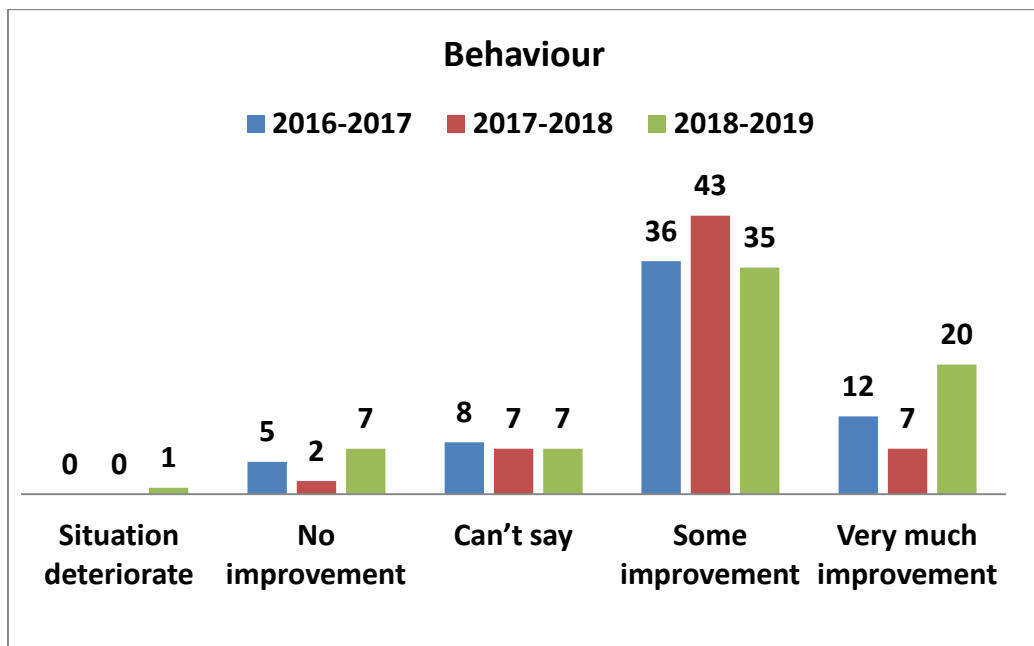
### **5.5.8. Comparison of Child Performance**

On asking about their child’s performance on various parameters, 63% parents informed that their child’s academic performance has improved in last two years. However 38% intimated that their ward’s performance has declined in these two years.



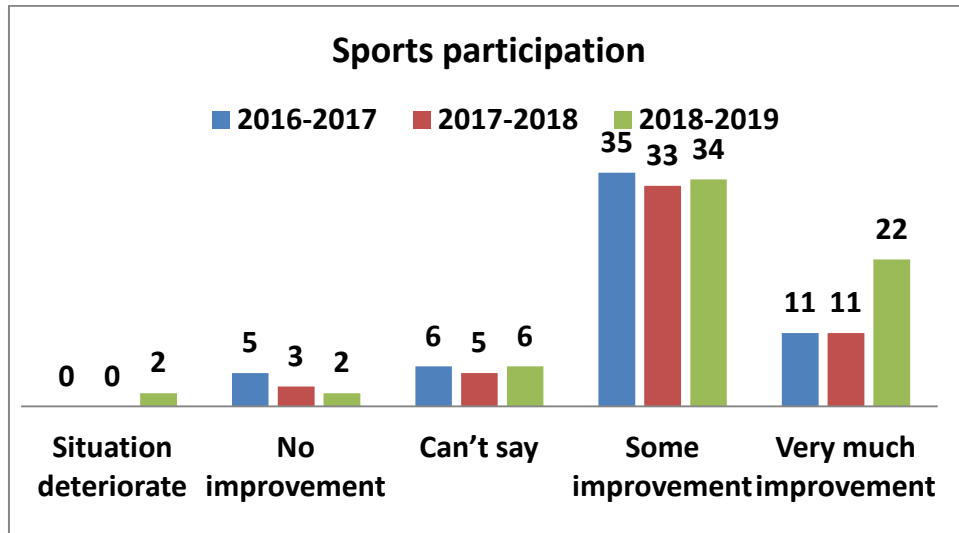
**Figure 5.5.10 Performance of child in last two years**

Similarly parents were asked questions about change in behavior of their child in these two years to assess effect of happiness classes. 76% Parents felt their child’s behavior has improved in 2018-19 as compared to 69% parents who felt that behaviour improved in 2017-2018. Thus there are 7% addition in parents who believe their childs behavior have improved in current year.



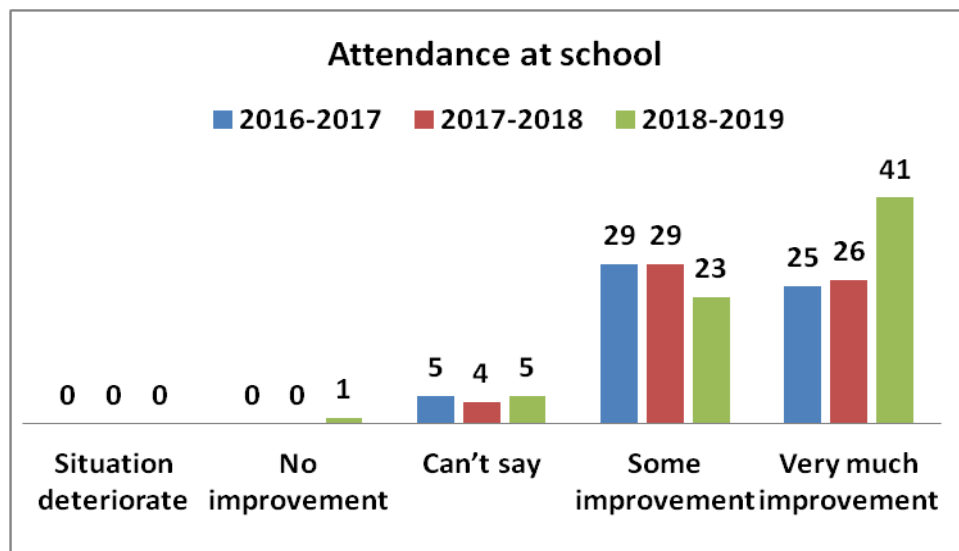
**Figure 5.5.11 Behavior improvement**

On asking about any change in behavior of their child regarding participation in sports. 77% parent felt that their child’s participation in sports has increased as compared to 61% parents in 2017-2018. Thus in this field also there is improvement in parents’ satisfaction with sports facilities..



**Figure 5.5.12 Sports participation**

On asking about improvement in punctuality of their ward in these years, 89% parents felt that their child attendance in school has improved in 2018-2019 as compared to 61% parents feeling so in year 2017-2018.



**Figure 5.5.13 Attendance at school**

Finally on asking about overall satisfaction with school, 78% felt improvement in 2018-2019 against 61% feeling so for year 2017-2018 and 2016-2017. Thus parents are feeling improvement in standard of schools.

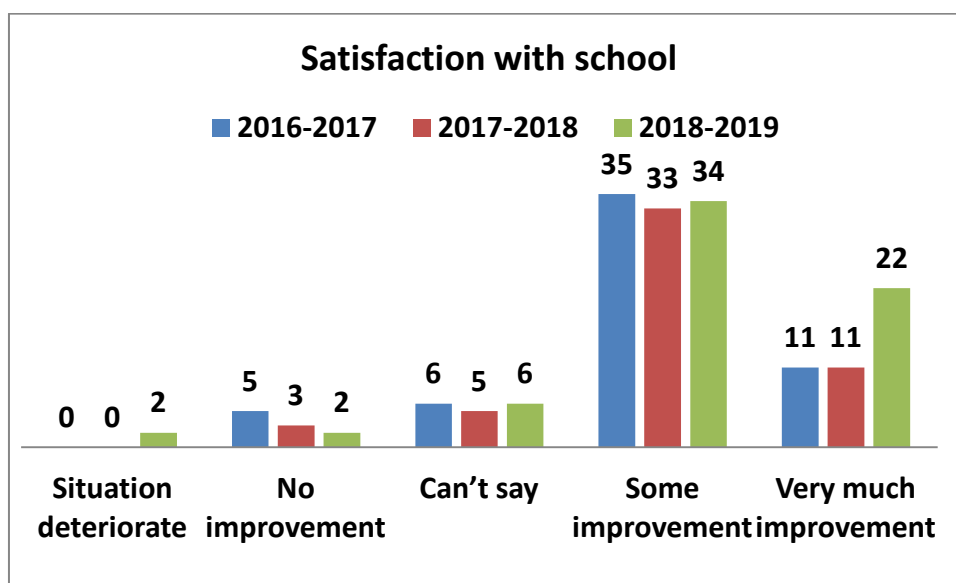
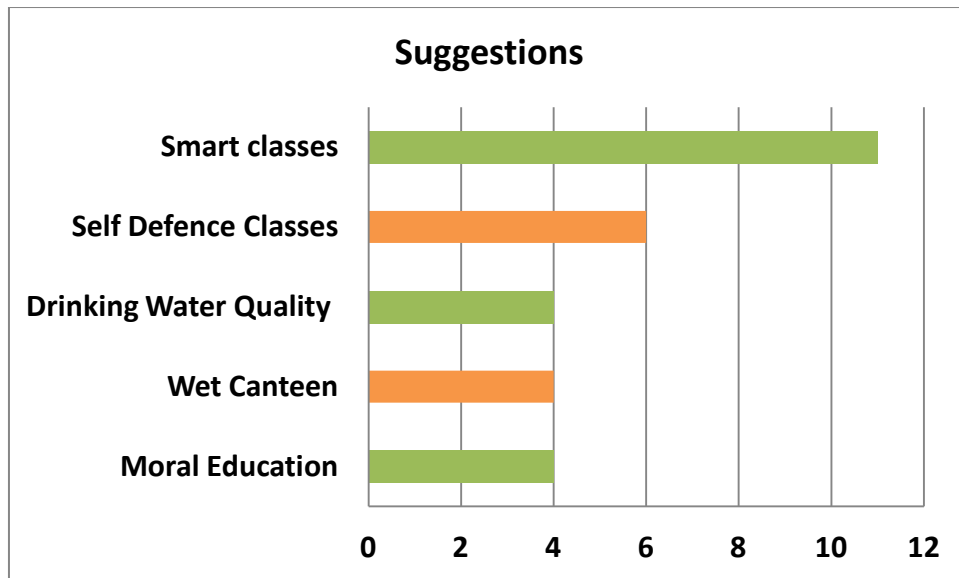


Figure 5.5.13 Satisfaction with school

### 5.5.9. Suggestions from Parents

On seeking suggestions from parents regarding improvement of school, the most quoted suggestion like students was more usage of smart classes. At present in schools predominant mode of dissemination of education is use of chalk boards. This should be gradually replaced with white boards wherein teacher can use multi color pens and same can be used as projector screens also for displaying audio visual digital contents in a cost effective manner. And some app may be developed by education deptt to involve parents in app in this mobile age so that they can get information about child on daily basis. Another suggestion from parents was inclusion of self defence classes in curriculum. There was some minor suggestions like moral education classes, wet canteen and availability of safe drinking water.



**Figure 5.5.14 Suggestions**

## **5.6. Self Observations**

Surveyor himself visited all schools and as intimated earlier except two schools, all schools cooperated in survey. The visited schools have experienced teachers as Principals, who have completed more than 20 years service, not only that they are tenating present role for more than 5 years giving them a good experience of school's requirements and contributing tremendously in their growth. They are leading schools with enthusiasm, great spirit, leading in planning, decision making and discharge of administrative duties.

It was found that in all schools considerable work has been carried out over infrastructure and still some works is still being carried out. In infrastructure scenario these schools can compete now with private schools. Staff and students have taken tremendous pain in decorating the schools after renovation work of school and their efforts are clearly visible on on walls of schools.

Though infrastructure has improved a lot but some shortcomings were also observed. Though these are minor but considering recent development these need to be looked

into by construction engineers and administration. One of these shortcoming was no urinal pots were provided in male toilets and only wall was being used for urination which is not only unhygienic but also a major deviation from accepted practice. Similarly it was observed that no crumple joint sheet was provided at crumple joints. Fire extinguisher filling was not being updated. However overall school has progressed well and barring few aberration they have done exceedingly well. Few pictures of schools are attached in succeeding pages.

### **5.7. Conclusive Findings**

Keeping in view the data collected from all four stake holders, surveyed and analysed with respect to awareness and responses of Principals, Teachers, Students and Parents as well as physical verification of facilities it can be concluded that :

Satisfaction level of various stakeholders i.e. Principals, Teachers, Students and Parents has improved during the last 3 years due to initiatives, developments taken by Delhi Government for these schools hence nul hypothesis  $H_0$  “Government policies/ its proactive involvement in daily running of schools cannot cause any significant improvement in schools’ performance” fails to be accepted and on the same ground alternate hypothesis  $H_A$  “Government policies/ its proactive involvement in daily running of schools can bring significant change and improvements in schools’ performance” can be accepted.

*“It is the supreme art of the teacher to awaken joy in creative expression and knowledge.”*

Albert Einstein

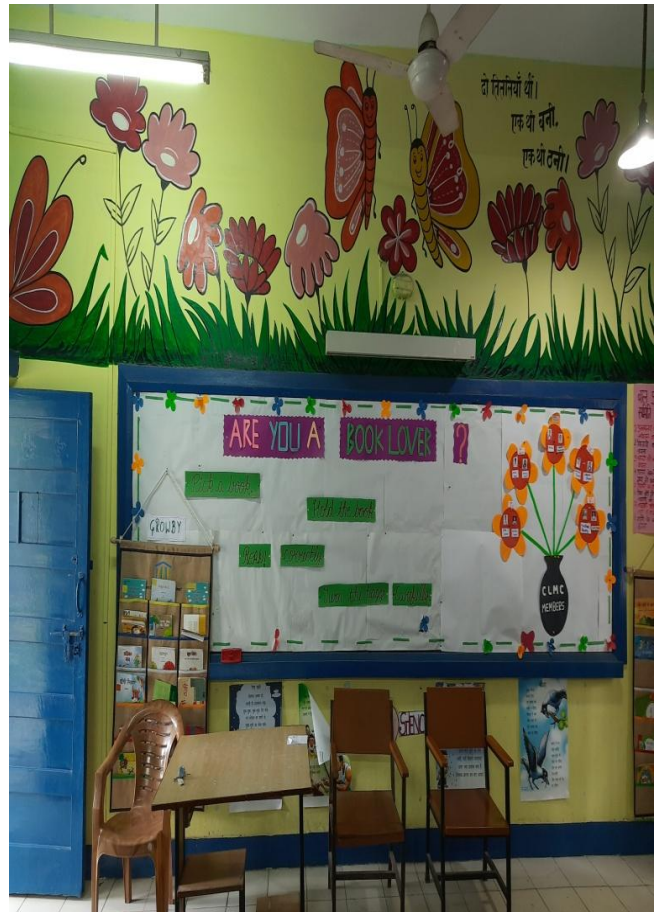


**Sarvodaya Bal Vidyalaya, Chirag Enclave**





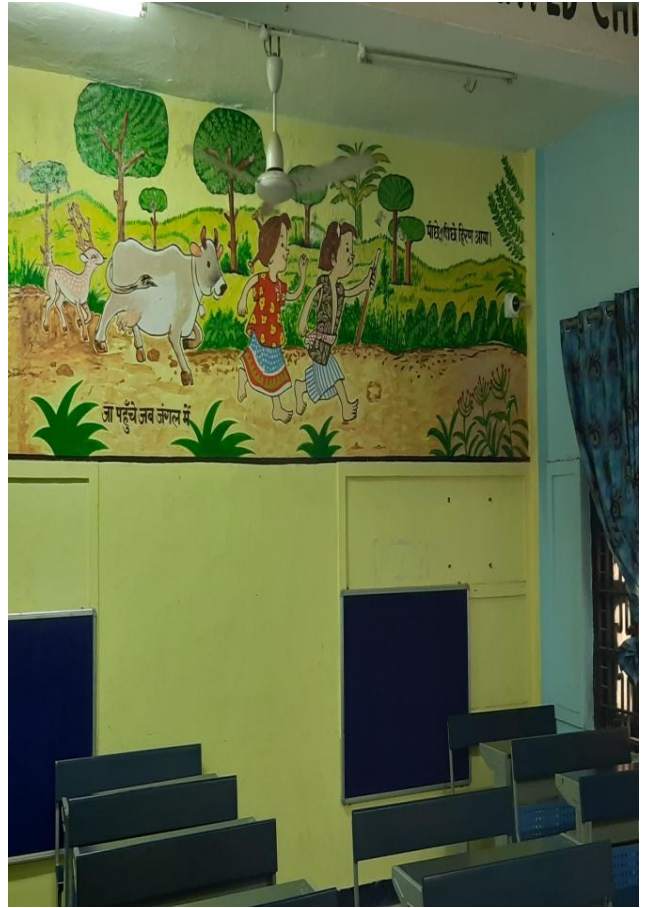
**Sarvodaya Bal Vidyalaya, Chirag Enclave**



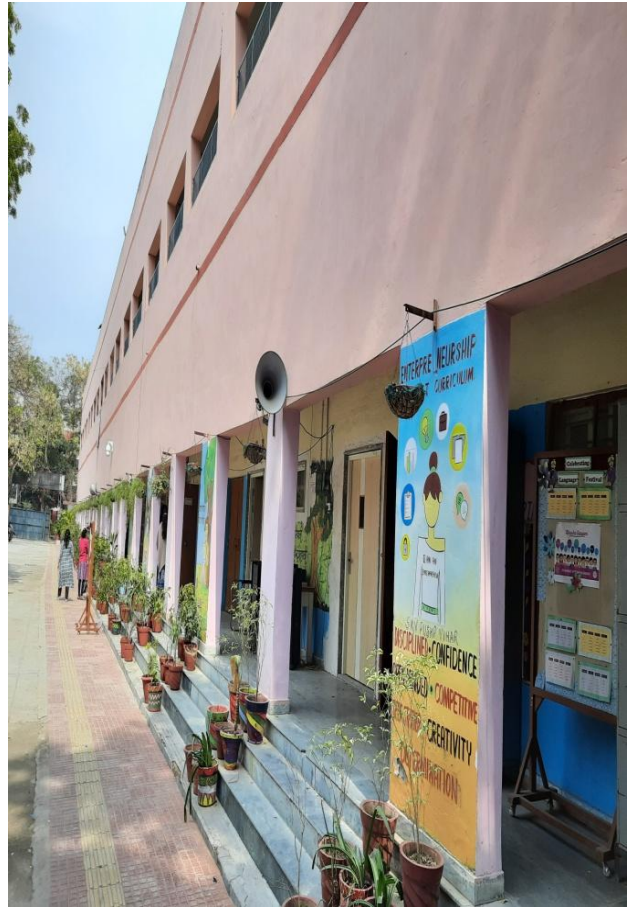
**Sarvodaya Kanya Vidyalaya, Green Park Extn**



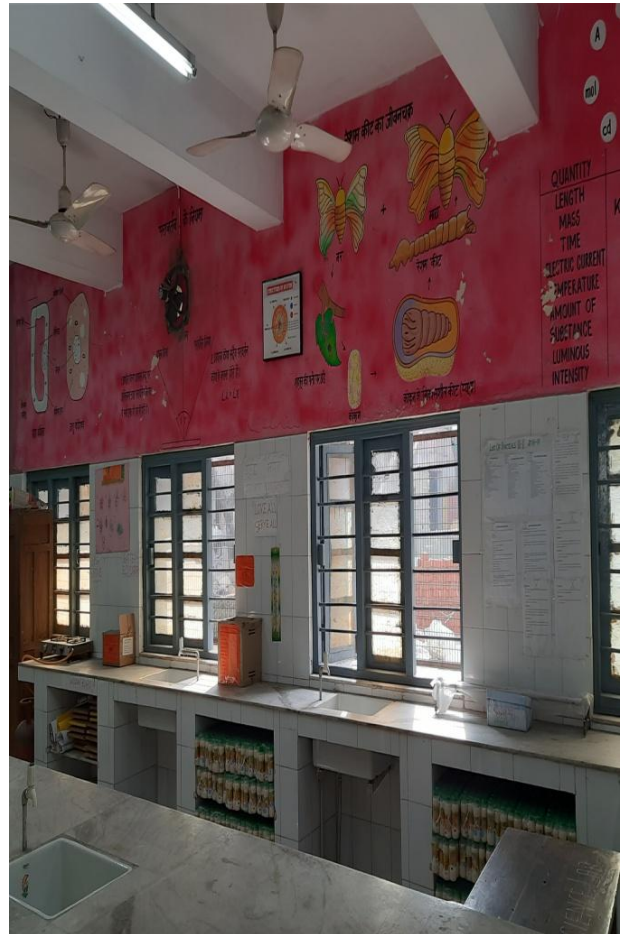
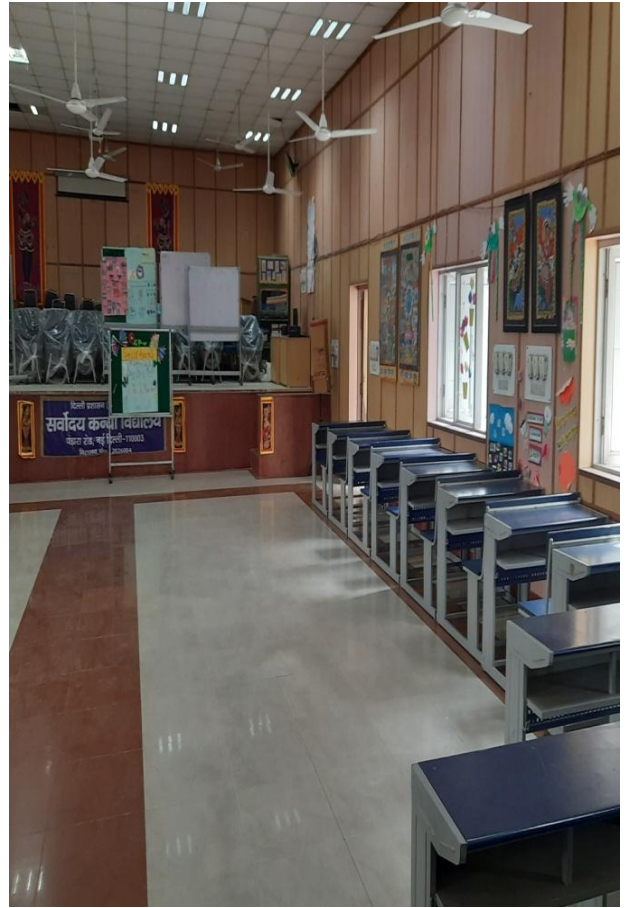
**Sarvodaya Bal Vidyalaya, Lajpat Nagar**



**Sarvodaya Kanya Vidyalaya, Moti Bagh**



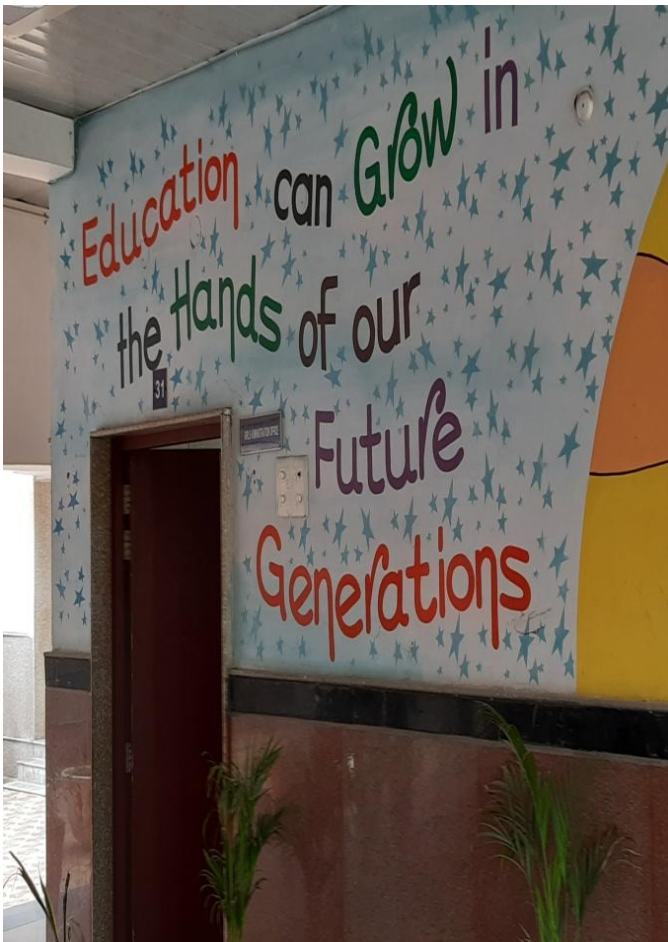
**Sarvodaya Kanya Vidyalaya, Chirag Delhi**



**Sarvodaya Kanya Vidyalaya, Pandara Road**

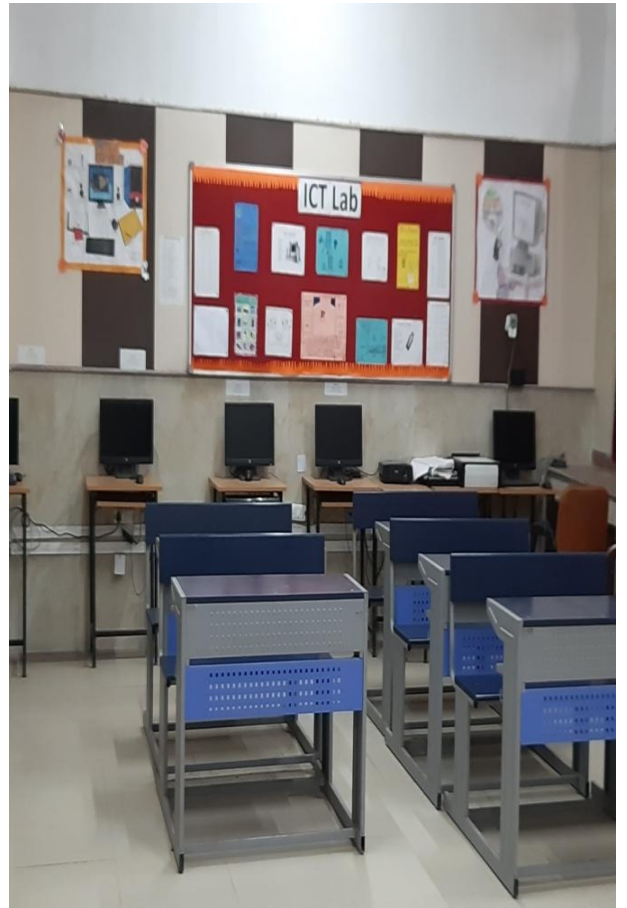


**Kalkaji School of Excellence**



**Sarvodaya Kanya Vidyalaya, Pushp Vihar**





**Sarvodaya Vidyalaya, R K Puram**

## Chapter 6

# FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

*“An investment in knowledge pays the best interest”*

Benjamin Franklin

### 6.1. FINDINGS

#### 6.1.1. Teaching Infrastructure

The Performance of any institution is influenced by many factors like infrastructure, human resources, ethos/ culture of the school, financial resources, external environment, teaching learning facilities etc. In data analysis chapter we tried to evaluate schools' progress/ performance on all these parameters. Effective teaching is the single biggest determinant of student's improvement in the school. Teachers not only have a direct impact on students' achievement but also have an impact on student engagement and motivation for learning. Quality teachers are the backbone of great schools. Excellence in teaching becomes evident from the qualifications of the staff, as well as the professional learning opportunities offered by the school to its teachers. Schools that excel pride themselves on staff excellence. In our survey we found that the schools were holding 88% teachers against sanctioned strength which is a healthy sign. However the picture does not cover teachers held as guest faculty separately. Principals couldn't intimate actual strength of teachers and strength of guest teachers separately. Anyway holding of teacher is good but administration need to take care about qualification of guest teaches. From teachers' data it is revealed that 26%

teachers' service span is less than 5 years which indicates relatively new recruitments/ presence of guest teachers. If we add in this 13% vacancies as revealed in principals' responses, the relatively new teachers' strength jumps to 40%, which shows poor attention towards teachers' recruitment in past. Teachers are the single most effective element to bring change in students and eventually in school performance.

### **6.1.2. Building Infrastructure**

A child spends his/her maximum time in school as a student. The school infrastructure then becomes a major factor behind how a child sees the world as he/she grows up. Away from home, schools become the second home for children. It is a fact that infrastructure plays a big role in creating a favorable environment for a child's growth. Like an experienced teacher and teaching pedagogy plays a critical role in shaping students' academic lives., infrastructure is also vital. It creates a favourable environment for students' holistic development. It's a common knowledge that every parent wants to ensure that the schools have ample safety standards and facilities to make learning a joy. During our survey we found that all four stake holders viz principals, teachers, students and parents all were very happy with progress and work on schools' building and infrastructure. More than 90% of all stake holders were found to be happy with building infrastructure. Majority of stake holders admitted to have spacious and well ventilated class rooms and even found cleaning standards of schools quite high. All stake holders found toilets of schools neat and clean. However one sore point was 41% students' admission that they face mosquito menace during classes. As principals said that they are resorting to spray of mosquito repellent to tackle the problem but same is not proving effective on ground and alternate methods need to be tried like wire meshing doors and windows.

### **6.1.3. Pedagogy Practices**

Pedagogy is a word of Greek origin made up of ‘paidos’ (child) and ‘agogos’ (leader.) So, it’s a fairly fancy word that describes the science and art of education and learning theory. The definition of pedagogy includes the theory and practice of teaching, the strategies employed in order to teach, the specific interaction of teacher and students, the instructive content used, the combined goals of the learner and teacher and the way the content is presented and delivered to the learner. Effective teaching involves using the ideal pedagogy at different times, in different contexts to support the very best learning outcomes. Pedagogy of the twentieth century differs from the pedagogy of the twenty-first century. Since the beginning of the twenty-first century, there have been many changes in the development of national and world education. The most observable phenomenon is now the Internetization of society and the penetration of digital technologies into learning. Almost all stake holders with majority preferred use of digital techniques for imparting knowledge as best medium but still its penetration in schools is minimal and emphasis is on old twentieth century practice of blackboard and chalks. This practice need to be augmented by digital contents and rich graphical representation of subjects on digital media needs to be explored.

### **6.1.4. Other Facilities**

The school facilities consist of the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems. The facilities also include laboratory materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking. The school facilities are an integral component of the conditions of learning and enhances learning experience if properly managed.

Practicals are vital for students. They are useful in understanding the theories and concepts of subject that can not be comprehended alone by text books. But working in labs alone is risky by the very nature of chemicals and lab experiments that are being conducted out there. During survey maximum students agreed that adequate staff was available in lab and they briefed properly experiments before its start. They also agreed that safety arrangements were adequate in the lab. Similarly during survey it was found that good playgrounds are available in all schools but a sizable strength of students (46%) admitted that sport teacher is not available regularly but some time only. Reason for the same may be overburden or lack of assistants. Sports is a specialised field and every stream of it need specific strategy and skills hence instead of generalised sports teacher, schools should recruit permanent assistants excelling in every sport separately to boost sports education in schools. Youth who drop out at the secondary and higher secondary levels was found to having minimum level of understanding about career planning and skill acquisition and end up doing unskilled work in order to provide some financial support to their family. Hence presence of career counselors is very necessary in every school. However during survey it was found that this aspect is somewhat neglected as in 57% cases this responsibility was being undertaken on part time basis. As per policy guidelines not one but two career counselors need to be appointed by each school hence this aspect needs to be looked.

#### **6.1.5. Happiness Classes**

The happiness curriculum was introduced by the Delhi government for its schools in 2018. The aim of introduction of the Happiness Curriculum in schools is to educate children to ensure harmony with their inner being and discover self in the process of learning and if we inculcate happiness in children right from childhood, they will grow up to become stress-free and happier adults. The curriculum for these happiness

classes is based on ‘happiness triad’ which correspond to our senses, feelings, learning (understanding) & awareness. During survey 64% students considered happiness classes effective to achieve concentration in classes and to reduce their stress level. Though happiness classes seem to be noble concept but these initial results are only satisfactory and curriculum needs to be tweaked after detailed discussion with children about their needs. and requirements..

#### **6.1.6. MPLADS/ MLALADS**

As per GOI guidelines issued in June 2016 , An MP can recommend funds, only upto Rs.50 lakh in all, in a financial year from Members of Parliament Local Area Development Scheme (MPLADS), for works to various Societies/Trusts. Similarly MPs may recommend an amount up to Rs.22 lakh in all per annum from their MPLADS fund, to purchase books for schools, colleges and public libraries belonging to Central, States/UTs and Local Self Government as per break up given in recent circular. The annual MPLADS fund entitlement per MP constituency is Rs. 5 crore. Even procurement / installation of Visual Display Units as well as computers is permissible for Government and Rs.4.00 crores in a year institutions under the scheme. The Govt. of Delhi has framed a scheme titled Member of legislative Assembly local area development scheme (mlalads) along the pattern of the MPs Local Area Development Scheme with fund outlay of Rs.4.00 crores in a year per MLA. But surprisingly none of the Principals were aware of these innovative and noble schemes and admitted no project was under planning under these schemes.

#### **6.1.7. Involvement Of Parents**

Results show that there are differences in children’s academic achievement between the parental involvement profiles, indicating children whose parents have a low involvement have lower academic achievement. On an average 64% Principals

preferred quarterly parent teachers meetings method to meet parents of students and discuss issues. Use of SMSs was negligibly i.e 9% only. Though PTM is a good forum to discuss childs' issues but in current digital age, interaction with parents on regular basis is not difficult and Principal/ teachers should be encouraged to use digital interaction with parents on regular basis. Parent-teacher meetings give parents the opportunity to discuss about their child's performance in school and to share their fears or worries regarding their child with their teachers. But, working parents find it impossible to make time to attend these meetings that most probably fall during working days in schools and most of the parents of these schools are daily wage earners hence these PTM can be economically a burden on them. Therefore, as a solution, some mobile or web apps can be developed to ensure smooth parent-teacher communication whenever possible.

#### **6.1.8. Conclusive Findings**

Keeping in view the data collected from all four stake holders, surveyed and analysed with respect to awareness of Principals, Teachers, Students and Parents as well as physical verification of facilities it can be finally concluded that overall satisfaction level of all stakeholders has increased in these past three years barring few issues. Schools are progressing on development path and modeling themselves as better choice and fulfilling dreams of weaker sections of societies.

#### **6.2. SUGGESTIONS**

Quality secondary education is essential not only for nation building but also for better future and aspirations of the students. Therefore strengthening of primary, secondary and higher education is utmost necessary by improving its quality.

The performance of any institution is influenced by many factors like infrastructure, human resources, ethos/ culture of the school, financial resources, external environment, teaching learning facilities etc.

After detailed analysis of above study it can be summarised as progressing in right direction. A great work has been carried on schools' building infrastructure and its upkeep. Now administration need to apply reforms in education quality and standards with equal vigour.

There is no doubt over good work in infrastructure sector but as highlighted earlier critical supervision was found slightly lagging, leading work executor to miss finer points like urinal pots, crumple joints and finishes.

Training of teachers is being conducted at regular intervals but administration need to look that all teachers are imparted this training without any favouritism and teachers and students need to be consulted before drafting schedule and content of training. Impact of any training need to be analysed by administration by performance and satisfaction of class before and after training.

Old black/ green board with chalks has now been outdated but it is the predominant medium of imparting knowledge still in delhi schools. Though true smart boards are very costly still, administration can go on replacing black/ green boards with white boards and provision of projectors in each class. This will be cost effective and being followed by kendriya vidyalayas, army public schools also. This can increase use of more audio visual contents for students and help in enhancing their learning experience.

Similarly it was observed that laptops has been provided in computer classes, though good gesture but desk top would have served the same purpose in lab as station in labs



are static. By providing desk tops in lieu of laptops will save considerable money as desk tops are much cheaper than laptops and saved money could be used for providing projectors in each class for enriched audio visual supplements, 3D/ Exploded view drawings to clear concepts to students.

Kendriya Vidyalaya Sangathan (KVS) has entered into partnership with ORACLE to give fillip to integration of ICT in education under project Think.com. Think.com provides a secure space on the web to students, teachers and schools who on turn make use of this facility by registering with the project. On the similar lines KVS has signed an MOU with the Microsoft to conduct training of teachers and principals in latest computer skills under project Shiksha.

Another innovative use of resources is to laise with corporate sector to extend their corporate social responsibility fund towards excellence of schools. It will not only relieve already stressed state government resources but also bring innovative knowledge of corporate sector to management of schools. A case for study in this regard is Rajkiya Balika Madhyamic Vidyalaya at sector 51, Noida which has been adopted by Haldiram group of industries. In addition to financial aid, Haldiram group is helping school with sharing their rich audio visual contents and merits of their educational society.

### **6.3. CONCLUSION**

India is a rapidly changing country in which inclusive, high-quality education is of utmost importance for its future prosperity. The country is currently in a youth bulge phase. It has the largest youth population in the world - an army of 600 million young people under the age of 25. Fully 28 percent of the population is less than 14 years of age.

In conclusion, the Government schools must change for the better. These are the hope for the weaker section of the society who look at them for brighter future of their next generation and opportunity they missed. It must give the students of all sections of society equal opportunities to shine better in the future and equal right on resources of country. To achieve the same we need to let go of the old and traditional ways and enhance the teaching standards so our youth can create a better India and in turn better world.

Overall it may be concluded that Delhi Government Schools have progressed a lot and with stimulated Government support they are excelling in shaping education standards of secondary schools. They are the hope of weaker sections of the society and they are fulfilling their hope by shaping future of their wards and future leaders of country.

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# **APPENDIX**

## APPENDIX I – PERMISSION LETTER FOR SURVEY FROM DELHI GOVERNMENT

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI  
DIRECTORATE OF EDUCATION: SCHOOL BRANCH  
OLD SECRETARIAT DELHI-110054

No.DE.23(455)/Sch. Br./Pt. 252

Dated: 27/2/2020

To

Sh. Surendra Nath Tripathi (Director)  
Indian Institute of Public Administration  
Indraprastha Estate, Ring Road,  
New Delhi-110002

**Sub:- Permission for Research Work by Shri Rajeev Garg, Director (Planning) under Ministry of Defence**

Sir,

With reference to your letter No.14/XLV-APPPA/13/2019-2- dated 14<sup>th</sup> February, 2020 on the above cited subject, I am directed to inform that the Competent Authority has granted the permission for Research Work by Shri Rajeev Garg, Director (Planning) under Ministry of Defence in the required 10 Govt. schools under Directorate of Education (list of schools attached).

**Permission is subject to the following terms and conditions:**

1. HOSs concerned to be consulted before starting any Research work/workshop including the schedule of programme.
2. The activities of the school/office should go smoothly.
3. Safety and security of the premises should be maintained properly.
4. Privacy of the staff should not be affected in the process of the project.
5. The visiting team should bring their own electronic equipments for use.
6. There shall be no uploading of the images/pictures/video of the officers/officials on social media pages except with the prior written permission of Director (Education).
7. Any damages whatsoever occurred while conducting the programme will be sole responsibility of the concerned Institute/Organisation and they should rectify the same to the entire satisfaction of the officers of Directorate of Education.
8. Concerned agency, will solely be responsible for any legal/financial liability/litigation that may arise out of the project, its process or findings.
9. Only the permitted events/activities will be carried out in the premises of school/office.

10. Financial aid will not be provided by the Directorate of Education to the concerned Organisation or any person for the above programme.

This issues with approval of the Competent Authority.

No.DE.23 (455)/Sch. Br./Pt./ 252

Copy to :-

1. PA to Director (Education).
2. HOSs of concerned schools for compliance (Through District .DDE)
3. DDE (Concerned Distirct/Zone)
4. Guard File.

3 niaz...  
DDE (School)  
Dated: 27/2/2020

Stal...  
27/2/2020  
OSD (School)

No	District	Zone	School ID	School Name	Address	Phone	Hos Name	Mobile	EmailID
1	South West A	19	1719022	R.K. Puram, Sector 7, No.3-SV	Sector-7, R. K. Puram	26101775	BAL KRISHAN CHAMOLI	9810873049	sv1719022@gmail.com
2	South West A	19	1719073	Moti Bagh-I-SKV	Moti Bagh-I Soarni Nagar, Chirag Delhi	26112826	RENU BHATTIA	9818404045	renu1.bhattia@yahoo.com
3	South	23	1923037	Chirag Delhi-SKV		26497424	DR. REKHA SINGH	9990574607	skv_soarninagar2@gmail.com
4	South	23	1923071	Pushp Vihar, M.B.Road-SKV	M. B. Road	29565739	SEIWAL VEENA DEVI	9911557697	1923071pv@gmail.com
5	South	23	1925032	Green Park Extn.-SKV (Gargi)	Green Park Extn.	26560737	MANISHA MALHOTRA	9810018155	gargi.skv@gmail.com
6	New Delhi	26	2026004	Pandara Road-SKV	Pandara Road	23073738	VINITA BAHAL	9811032589	skv.school@yahoo.com
7	Central	27	2127001	Rouse Avenue-SBV	Deen Dayal Updhyay Marg	23235263	DR. DAVINDERA	9560794333	sid2127001@yahoo.com
8	South East	25	1925003	Chirag Enclave-SBV (Kautilya)	Chirag Enclave	26416419	CHITENDER SINGH VERMA	9871714366	chitender1@gmail.com
9	South East	25	1925059	Lajpat Nagar, Ring Road-SBV (Shaheed Hemu Kalani)	Ring Road, Lajpat Nagar	29840451	BUESH KUMAR SHARMA	9811141519	shk.1925059@rediffmail.com
10	South East	29	1925430	Kalkaji School of Excellence	Kalkaji, New Delhi		MOHD. SHARIQ	9643920087	

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## APPENDIX II – QUESTIONNAIRE FOR PRINCIPAL

### Questionnaire for Principal

- This survey is being carried out to assess different aspects impacting education standards in government schools.
- Data provided would be kept confidential and identity of respondent will not be disclosed in research.
- We thank for your efforts, time and cooperation extended to complete the survey.

Name:

Qualification:

Experience (in years)

Experience in  
Current Position

Total No. of Teachers  
at Present

Total No. of  
Teachers authorised

1. Pass Percentage of students of class 10 in the year  
2019  
2018  
2017
2. Pass percentage of students of class 12 in the year.  
2019  
2018  
2017
3. Is there any schedule for training of teachers? (Y/N)
4. What is frequency of training of teachers?  
a) Never                      b) Biannual                      c) Annual



17. Are there any special provisions to cater for the needs of Divyang students? (Y/N)
18. Are parents being involved in development of students? (Y/N)  
If yes, please elaborate
19. Are PTMs held regularly?  
a) Annually    b) Biannual    c) Quarterly    d) Monthly    e) Not at all
20. How often school structure is being inspected for safety of infrastructure?  
a) Every 5 years    b) Every 10 years    c) Every year    d) Never
21. Firefighting mock drills frequency  
a) Quarterly    b) Biannual    c) Annual    d) Never
22. How often electrical safety inspection is being carried out?  
a) Quarterly    b) Biannual    c) Annually    d) Not at all
23. Is there any formal children evacuation plan in case of emergency? (Y/N)
24. Is there any school development plan? (Y/N)
25. Provision to fight mosquito menace in school  
a) Wire meshed windows    b) Regular spray of Mosquito repellants    c) No water leakages/logging    d) All the above
26. Social/Community training in School  
a) NCC    b) NSS    c) Scout    d) None
27. Are vocational trainers available in School? (Y/N)

28. How many students of class 9 to 12 opted for vocational training?  
 a) <10                      b) 10-50                      c) 51-100                      d) 101-200                      e) >200

29. Do MP/MLA have ever added school through MP LADs/MLA LADs?  
 (Y/N)

30. Is there any monitoring of students/campus through CCTVs? (Y/N)

31. Are Audio Visual Aids/Smart Boards available in class?  
 a) In all classes    b) More than 50% class    c) 10-50% class    d) Not at all

32. Kindly rate following learning tools on a 5-point scale based on their contribution to student development.

(1=Least Suitable; 2=Somewhat suitable; 3=Moderately suitable; 4=Highly suitable; 5=Most suitable)

	1	2	3	4	5
a) Class Room based lectures					
b) Audio video digital lectures					
c) Learning through practicals					
d) Teaching on simulators					
e) Movie clips/story telling					
f) Learning through games					

33. Kindly intimate if above pedagogy is being used in your classes

	Yes	No
a) Class Room based lectures		
b) Audio video digital lecture		
c) Learning through practical		
d) Teaching on simulators		
e) Movie clips/story telling		
f) Learning through games		

34. Please intimate comparison of school facilities in last 3 years

	2018-2019	2017-2018	2016-2017
a) No. of PTMs			
b) No. of students (class 6-12)			
c) No. of Teachers Trained (India)			
d) No. of Teachers Trained (Abroad)			
e) Happiness classes			
f) Biometric Attendance			
g) Attendance/Punctuality of Students			
h) Visit of students outside			
i) Sports events organized			
j) Trophies/Medals won by students			
k) Vocational course students			
l) Schemes for female students (like sanitary pads distribution)			
m) Students selected in IIT JEE			
n) Students selected in NEET			

35. Any suggestion for further improvement of School.

## APPENDIX III – QUESTIONNAIRE FOR TEACHERS

### Questionnaire for Teachers

- This survey is being carried out to assess different aspects impacting education standards in government schools.
- Data provided would be kept confidential and identity of respondent will not be disclosed in research.
- We thank for your efforts, time and cooperation extended to complete the survey.

Name:

Qualification:

Experience (in years):

Experience in  
present school:

Subject taught:

1. Have you ever been trained for the subject you are teaching? (Y/N)
  
2. Total no. of training programme attended so far  
a) Nil                      b) 1-4                      c) 5-10                      d) >10
  
3. How often you are sent for attending training programme by the schools  
a) Quarterly    b) Biannually    c) Annually    d) Biennially    e) Never
  
4. What was the mode of selection for attending training programme? (You can tick more than one option)  
a) Selection by Principal    b) Class results    c) Feedback of the students    d) Management recommendation    e) Any other
  
5. What all improvements did you see after attending the training programmes?

- a. Improvement in teaching pedagogy
- b. Improvement in knowledge of subject
- c. Improvement in confidence
- d. Handling of students/maintaining discipline
- e. No perceived improvement

6. Do you find curriculum of subject well defined? (Y/N)

7. Are you satisfied with time/class allotted to you for completing your subject? (Y/N)

8. What is pass percentage of your subject?

Year	Percentage
2018-2019	
2017-2018	

9. Do you give home work to students? (Y/N)

10. How often do you indicate mistakes of students which are found in Home Work?

- a) Every time
- b) Very often
- c) Rarely
- d) Never

11. Is infrastructure of school adequate? (Y/N)

12. Are classrooms spacious and properly ventilated? (Y/N)

13. Is there proper arrangement of lights in the classroom? (Y/N)

14. Does school provide any teaching material in digital form for your subject? (Y/N)

15. Are you asked to handle subjects other than your regular subjects?

- a) Usually
- b) Rarely
- c) Never

16. How do you motivate weak students in class?

- a. By encouraging them to ask question/answer in class

- b. By arranging extra classes for such students
- c. By suggesting them alternate methods/books
- d. By explaining topic with digital method
- e. It is duty of school administration

17. Do you involve parents in development of students? (Y/N)

18. How do you involve parents in development of child?

- a) Discuss with them regularly about their ward
- b) Discuss during PTM
- c) Never discuss student's mistake with parents
- d) It is not my duty

19. How often do mock drills for disaster being conducted by school?

- a) Monthly
- b) Quarterly
- c) Biannual
- d) Annually
- e) Not at all

20. Are staff rooms adequate to address the requirements of teachers (Y/N)

21. Are you provided with teaching aids within the stipulated time? (Y/N)

22. Kindly rate following learning tools on a 5-point scale based on their contribution to student development.

(1=Least Suitable; 2=Somewhat suitable; 3=Moderately suitable; 4=Highly suitable; 5=Most suitable)

	1	2	3	4	5
a) Class Room based lectures					
b) Audio video digital lectures					
c) Practicals					
d) Teaching on simulators					
e) Movie clips/story telling					
f) Learning through games					



23. Kindly intimate if above pedagogy is being used in your classes

	Yes	No
a) Class Room based lectures		
b) Audio video digital lectures		
c) Learning through practicals		
d) Teaching on simulators		
e) Movie clips/story telling		
f) Learning through games		

24. How do you rate change in environment of school compared to last 2 years?

(1=Situation deteriorated; 2=no improvement; 3=can't say; 4=it has improved; 5=very much improvement)

	2016-17	2017-18	2018-19
a) Building infrastructure has improved			
b) Cleanliness has improved			
c) Teaching standard has improved			
d) Performance of students			

25. Any suggestion for improvement of school

## APPENDIX IV – QUESTIONNAIRE FOR STUDENTS

### Questionnaire for Students

- This survey is being carried out to assess different aspects impacting education standards in government schools.
- Data provided would be kept confidential and identity of respondent will not be disclosed in research.
- We thank for your efforts, time and cooperation extended to complete the survey.

Name:

Age:

Class:

Stream:

1. Your most interesting subject:
2. How do you find environment of the school?  
a) Very encouraging      b) Encouraging      c) Somewhat boring      d) Boring      e) Can't say
3. Who is your favorite teacher (also name subject taught by him/her)?
4. Are adequate staff available in labs to help/support you? (Y/N)
5. Does instructor explain you aim of science practical/procedures/safety precaution during lab work? (Y/N)
6. Do you find safety arrangements during lab work adequate? (Y/N)
7. How often does the sports teacher available to explain you about a particular sport?  
a) Regularly      b) Some times      c) Available but doesn't give time      d) Never

8. Are there any extra classes for some subjects/topics? (Y/N)
9. Does library of school have wide range of books of your subject? (Y/N)
10. Is Book Bank facility is available at School? (Y/N)
11. Are toilets of school neat & clean? (Y/N)
12. Do you face mosquito problem in class? (Y/N)
13. Are classrooms spacious and ventilated? (Y/N)
14. Is there proper lighting arrangement/daylight in the class? (Y/N)
15. Are all ceiling fans functioning in class? (Y/N)
16. Is any evacuation plan for emergency discussed and explained to you?  
(Y/N)
17. Is any career counsellor available in school? (Y/N)
18. How often does the career counsellor meet you?  
a) Monthly      b) Quarterly      c) Biannual      d) Annually      e) Never
19. How will you rate the overall impact of happiness classes in your development?  
a) Very much      b) Somewhat      c) Not at all
20. Impact of happiness classes in your development?  
a) Improved my concentration      b) Improved my behavior      c) Improved my performance      d) Reduced my stress level      e) No perceived change

21. How do you rate following methods of teaching on a scale of 1 to 5?

(1=Least effective; 2=Somewhat effective; 3=Moderately effective; 4=Highly effective; 5=Most effective)

	1	2	3	4	5
a) Class Room based lecture					
b) Lecture using audio-visual aids					
c) Digital lecture					
d) Praticals					
e) Teaching on simulators					
f) Movie clips/story telling					
g) Learning through games					

22. Kindly intimate if methods below is being used in your classes

	Yes	No
a) Class Room based lectures		
b) Audio video digital lectures		
c) Learning through practical		
d) Teaching on simulators		
e) Movie clips/story telling		
f) Learning through games		

23. How do you rate change in environment of school compared to last 2 years?

(1=Situation deteriorated; 2=no improvement; 3=can't say; 4=it has improved; 5=very much improved)

	2016-17	2017-18	2018-19
a) Building infrastructure has improved			
b) Cleanliness has improved			
c) Teaching standard has improved			
d) Performance of your class mates			

24. Any suggestion for improvement of school

## APPENDIX V - QUESTIONNAIRE FOR STUDENTS PARENTS

### Questionnaire for Students Parents

- This survey is being carried out to assess different aspects impacting education standards in government schools.
- Data provided would be keep confidential and identify of respondent will not be disclosed in research.
- We thank for your efforts, time and cooperation extended to complete the survey.

Name of Student:

Age:

Name of School:

Class:

Father's  
Occupation:

Monthly Income:

1. Are you satisfied with progress of your child? (Y/N)
2. How will you rate change in performance of your child last 3 year?  
(1=Situation deteriorated; 2=no improvement; 3=can't say; 4=it has improved; 5=very much improved)

	<b>2018-19</b>	<b>2017-18</b>	<b>2016-17</b>
a) Performance (Academic)			
b) Behavior			
c) Satisfaction with school			
d) Sports participation			
e) Attendance at school			

3. How many PTMs have you attended in last year?  
a) 1                      b) 2                      c) 3                      d) 4                      e) Never

4. Do teachers explain you about your child's progress?  
a) Regularly    b) Some times    c) Never
  
5. Did you find some improvement in school infrastructure in last two years? (Y/N)
  
6. Do you find class of your child spacious and ventilated? (Y/N)
  
7. What is percentage of your child in last two years  
a) Class: \_\_\_\_\_ Percentage: \_\_\_\_\_  
b) Class: \_\_\_\_\_ Percentage: \_\_\_\_\_
  
8. How many hours you devote to the studies of your child after he/she returns from school?  
a) Self-study only    b) Not at all    c) 1hr    d) 2-3hrs    e) More than 3hr
  
9. Do you find school building adequate? (Y/N)
  
10. Do you feel your child is being explained subjects in class itself and you don't need any tuition/extra efforts for him? (Y/N)
  
11. Is any career counsellor available in school to guide you ward for his future? (Y/N)
  
12. Did your child ever get hurt/felt sick in school? (Y/N)
  
13. If yes, how did he/she get first aid?  
a) At school itself    b) We were informed by school to take away child to hospital    c) Admitted to hospital by school    d) None of the above
  
14. Are you satisfied with hygiene and quality of school canteen? (Y/N)
  
15. Is there any provision of clean drinking water at school? (Y/N)
  
16. Are you satisfied with safety measures of the school? (Y/N)

17. Did you perceive any change in performance of school vis a vis two years back?

- a) Tremendous improvement      b) Some improvement      c) No improvement      d) It has deteriorated

18. Any suggestions for improvement

## APPENDIX VI - छात्रों के अभिभावकों के लिए प्रश्नावली

### छात्रों के अभिभावकों के लिए प्रश्नावली

- यह सर्वेक्षण सरकारी स्कूलों में शिक्षा मानकों को प्रभावित करने वाले विभिन्न पहलुओं का आकलन करने के लिए किया जा रहा है।
- उपलब्ध कराए गए डेटा को गोपनीय रखा जाएगा और शोध में प्रतिवादी की पहचान का खुलासा नहीं किया जाएगा।
- हम सर्वेक्षण को पूरा करने के लिए आपके प्रयासों, समय और सहयोग के लिए धन्यवाद देते हैं।

विद्यार्थी का नाम:

उम्र:

विद्यालय का नाम:

वर्ग:

पिता का व्यवसाय:

मासिक आय:

1. क्या आप अपने बच्चे की प्रगति से संतुष्ट हैं? (हाँ / नहीं)

2. आप पिछले 3 साल में अपने बच्चे के प्रदर्शन में कितना बदलाव महसूस करते हैं?

(1 = स्थिति बिगड़ गई है; 2 = कोई सुधार नहीं है; 3 = कुछ नहीं कह सकते; 4 = इसमें सुधार हुआ है; 5 = बहुत सुधार हुआ है)

	2018-19	2017-18	2016-17
क) शैक्षिक प्रदर्शन			
b) व्यवहार			
c) स्कूल से संतुष्टि			
डी) खेल भागीदारी			
ई) स्कूल में उपस्थिति			

3. आपने पिछले वर्ष कितने पीटीएम में भाग लिया है?

ए) 1

b) 2

ग) 3

घ) 4

ई) कभी नहीं

4. क्या शिक्षक आपको अपने बच्चे की प्रगति के बारे में समझाते हैं?

a) नियमित रूप

b) कभी कभी

ग) कभी



से

नहीं

5. क्या आपने पिछले दो वर्षों में स्कूल के बुनियादी ढांचे में कुछ सुधार पाया? (हाँ / नहीं)
6. क्या आपको अपने बच्चे की कक्षा समुचित और हवादार लगती है? (हाँ / नहीं)
7. पिछले दो वर्षों में आपके बच्चे का प्रतिशत कितना है  
क) वर्ग: \_\_\_\_\_ प्रतिशत: \_\_\_\_\_  
बी) वर्ग: \_\_\_\_\_ प्रतिशत: \_\_\_\_\_
8. स्कूल से लौटने के बाद आप कितने घंटे अपने बच्चे की पढ़ाई के लिए समर्पित करते हैं?  
a) केवल स्व- अध्ययन b) बिलकुल नहीं ग) 1 घंटा d) 2-3 घंटा ई) 3 घंटा से अधिक
9. क्या आपको स्कूल की इमारत पर्याप्त लगती है? (हाँ / नहीं)
10. क्या आपको लगता है कि आपके बच्चे को कक्षा में ही विषयों के बारे में समझाया जा रहा है और आपको उसके लिए किसी ट्यूशन / अतिरिक्त प्रयासों की आवश्यकता नहीं है? (हाँ / नहीं)
11. क्या कोई करियर काउंसलर स्कूल में उपलब्ध है जो छात्र को उसके भविष्य के लिए मार्गदर्शन कर सकें? (हाँ / नहीं)
12. क्या आपके बच्चे को स्कूल में कभी चोट लगी / बीमार महसूस किया गया? (हाँ / नहीं )
13. यदि हाँ, तो उसे प्राथमिक चिकित्सा कैसे मिली?  
a) स्कूल में ही b) हमें स्कूल द्वारा बच्चे को अस्पताल ले जाने के लिए सूचित किया गया था c) स्कूल द्वारा बच्चे को अस्पताल में भर्ती कराया गया d) उपरोक्त में से कोई नहीं
14. क्या आप स्कूल कैंटीन की स्वच्छता और गुणवत्ता से संतुष्ट हैं? (हाँ / नहीं)
15. क्या स्कूल में पीने के साफ पानी की कोई व्यवस्था है? (हाँ / नहीं)
16. क्या आप स्कूल के सुरक्षा उपायों से संतुष्ट हैं? (हाँ / नहीं)

17. आपने स्कूल के प्रदर्शन में कोई परिवर्तन अनुभव किया है पिछले सालों की तुलना में?

- क) जबरदस्त सुधार      b) कुछ सुधार      c) कोई सुधार नहीं      d) यह खराब हो गया है

18. और सुधार के लिए कोई सुझाव