

Study of the Academic Achievement of the Students at Elementary Level in the Government Schools of Delhi.

Dr. Nahar Singh

Joint Director Academic
SCERT, Delhi

ABSTRACT

*Assessing the learning achievements of children in the States/ UTs. As a matter of Policy SCERT, Delhi has made it a part of its agenda to carry out this Achievement Survey for Classes II, V and VIII for monitoring the quality of School Education at the Elementary Stage in Government run Schools of Delhi. Six districts were selected. Further, 25 Schools were selected from each district (total 150 Schools). So far administration of Achievement Tests were concerned total 27000 tests were administered in all the three classes in their respective selected subjects which comprised of 5886 tests in Class II, 7208 tests in Class V & 13906 tests in Class VIII. The major findings of the study reflect that the performance of students from class II to class VIII in **Language (Hindi)** is falling with the promotion to the next grade. In class II the mean percentage score of state in Language is 68%, in class V it is 51% and lowest in class VIII i.e. 33%. The performance of students from class II to class VIII in **Mathematics** is falling with the promotion to the next grade. In class II the mean percentage (%) score of state is 56%, 37% in class V and lowest in class VIII i.e. 28%. The achievement level of students in **EVS** for class II was 53%, the achievement level of students in class VIII was 38% in **Science** and in **Social Science** it was 37%. So study was reflected the academic achievement of the students.*

Background:

State Level Achievement Survey (SLAS) was conducted by SCERT Delhi for classes III, V and VIII in 2014-15 to find out the learning achievements of students studying at Elementary Stages and also collect relevant information about the background factors i.e. School Environment, Home Background of Students, and Teachers' Qualification etc., that could potentially influence learning outcomes. Findings of the SLAS will give various Stakeholders and Policy Makers an impetus for improving the learning achievement in Schools and enable the Government to objectively evaluate its Educational Policies in the State of Delhi.

Objectives:

- To find out the learning achievement of students of Class III (Hindi and Mathematics), V (Hindi and Mathematics) and VIII (Hindi, Mathematics and Science).
- To compare the achievement level of students on the basis of gender, area, category and management.
- To see the association of background variables (school, pupil and teacher) on achievement of students.

Sample Selection

In this report, findings of the second State Level Achievement Survey (SLAS) of classes III, V & VIII are presented. Students studying in the Government schools of NCT, Delhi under Directorate of Education, MCD, NDMC and DCB

were selected. Districts and the Schools were selected randomly i.e. Five districts were randomly selected from thirteen districts of GNCT, Delhi. The selected districts were East, Central/New Delhi, South and South East, North West and South West. Further, 50 schools were selected from each district i.e. a total number of 250 schools were covered for the survey. The overall sampled students for administration of achievement tests were 15,000. Distribution of sample for each class is given in the following table:

Development of Tools

Sub-committees were formed for development of tools for data collection. Tools developed and finalized after pilot testing in the schools drawn from sample. Previous surveys' tools, reports of NAS and related tools were studied in depth before finalizing the tools. Then necessary adaptations and modifications were taken up in the tools developed by SCERT.

To measure the learning levels of students studying in classes III, V & VIII in valid and reliable manner the Achievement Tests were developed in Language (Hindi) and Mathematics in Class III, Language (Hindi) and Mathematics in Class V and Language (Hindi), Mathematics and Science in class VIII. For this purpose, the syllabi and the textbooks of classes III, V & VIII in the subjects selected were analyzed and core content and competencies were identified, which formed the framework for developing Achievement Tests in different subjects in classes III, V & VIII. The Item Grid specifying the Difficulty Level and Theme/Concept. Competency of each item of the Achievement Test was constructed.



Besides the above given Achievement Tests, three Questionnaires were developed to collect information on Background Factors of Schools, Teachers, and Pupils which are as follows:

The tools i.e., Achievement Tests and Questionnaires for collecting information about schools, teachers and students were administered upon the sampled students and teachers of selected schools in their respective classes.

Tool Administration

District Coordinators from different DIETs of Delhi with academic faculty and D. El. Ed trainees were oriented for the purpose of administration of tools for data collection in the selected sample schools of NCT, Delhi. All the coordinators were trained on the field level data collection. They were given rigorous training on the selection of students in the sampled schools, administration of tools and recording of responses.

The tools i.e., Achievement Tests and Questionnaires were administered upon the selected sample students, schools, and teachers.

After the administration of the tools, the data gathered was sorted, cleaned and tabulated for analysis.

Analysis of Data

In SLAS, the data was analyzed using Classical Test Theory (CTT) and Item Response Theory (IRT). Throughout this report, results are reported using 'Scale Scores', calculated using IRT, which are placed on a scale from 0 to 500 with a Mean of 250 and Standard Deviation of 50 along with percentage correct i.e. percentage of students attempting items / test correctly using CTT. Scaled scores are computed by statistically adjusting and converting raw scores onto a common scale to account for differences in difficulty levels of test items.

In addition to the average scores, percentile scores are also reported in the SLAS. Percentile tables illustrate the achievement within districts at different percentiles. By providing such data, SLAS allows Districts to compare achievement not only for 'average students', but also across the full ability range.

An attempt has been made to know what students know and can do at various competency levels in different subjects, what are the areas where they are lagging behind. Association of background variables (school, students and teachers) with achievement of students was also analyzed and reported in different subjects.

Findings of Students Achievements

Class III

Language (Hindi)

Average score for Delhi State was 251 (with Standard Error of 2.3). Students of district South West were performing significantly better than the State. Average Score of North West was significantly below than that of the State average.

Overall, girls were performing better than boys in Language. On the basis of location, no significant differences were observed between urban and rural areas.

On an average, students of Delhi Cantonment Board achieved significantly higher score than those in other school management types.

Mathematics

Average score in Mathematics for Delhi State was 250 (with Standard Error of 2.2). Average score for the district Central/New Delhi was significantly higher than the average score of Delhi State. Districts of East and North West were significantly below than that of the State in terms of average score.

In Mathematics, no differences were detected between girls and boys. On the basis of location, no significant differences were observed in average scores of students of urban and rural areas. On an average, students of Delhi Cantonment Board achieved significantly higher score than those in other school management types.

Students in schools run by Directorate of Education were performing significantly better than students studying in schools run by Municipal Corporation and NDMC.

Class V

Language (Hindi)

Average score for Delhi State was 249 (with Standard Error of 2.4). Students of Central/New Delhi district were performing significantly better than the State. Average score of East district was significantly below than that of the State average.

Overall girls and boys were performing equally in Language Test. On the basis of location, it was found that students of urban areas were performing significantly higher than students of rural areas. On an average, students of schools managed by Delhi Cantonment Board achieved significantly higher score than those in other school management types.

Mathematics

Average score in Mathematics for Delhi State was 251 (with Standard Error of 2.1). Average scores for the districts of Central/New Delhi and South West were significantly higher than the average score of Delhi State. District of North West was significantly below than that of the State in terms of average score. Gender wise, no differences were detected between girls and boys. On the basis of location, no significant differences were observed in average scores of students

of urban and rural areas. On an average, students of Delhi Cantonment Board achieved significantly higher score than those in other school management types.

Class VIII

Language (Hindi)

Average score for Delhi State was 250 (with Standard Error of 1.8). Students of district of South West were performing significantly better than the State. Average score of East district was significantly below than that of the State average. Overall, girls were performing significantly better than boys in Language. On the basis of location, no significant differences were observed between urban and rural areas. Students of schools managed by Municipal Committee achieved significantly higher scores than those in other school management types.

Mathematics

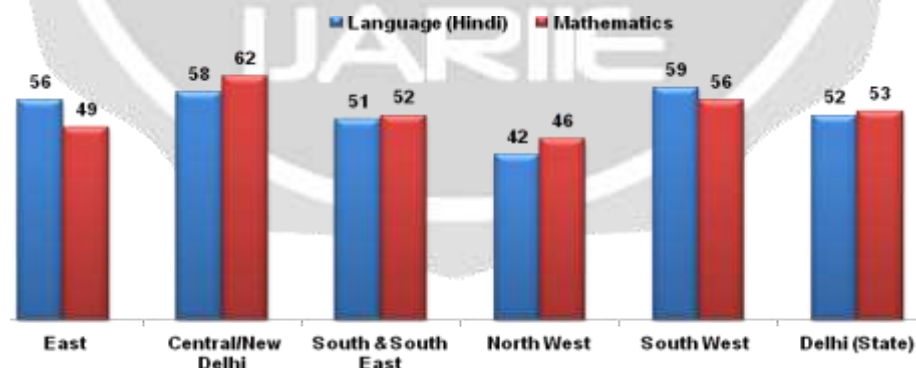
Average score in Mathematics for Delhi State was 250 (with Standard Error of 2.1). In Mathematics, no differences were observed between participating districts and overall average score of State. Overall girls and boys were performing equally in Mathematics Test. On the basis of location, it was found that students of urban areas were performing significantly higher than students of rural areas. On an average, students of Municipal Committee achieved significantly higher score than their counterparts in other school management types.

Science

Average score in Science for Delhi State was 250 (with Standard Error of 2.3). Average score for the district of Central/New Delhi was significantly higher than the average score of overall Delhi State. District of North West was significantly below than that of the State in terms of average scores. No differences were detected between girls and boys.

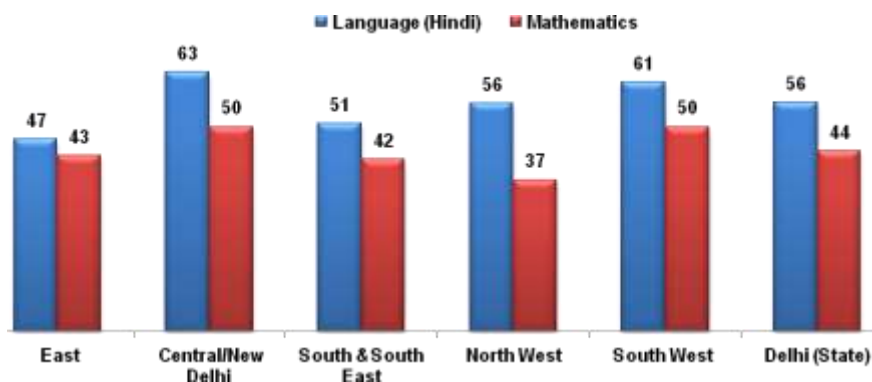
On the basis of location, no significant differences were observed in average score of students of urban and rural areas. Students of Delhi Cantonment Board achieved significantly higher score than those in other school management types.

Trend Analysis of Students' Achievement of Class III, V & VIII



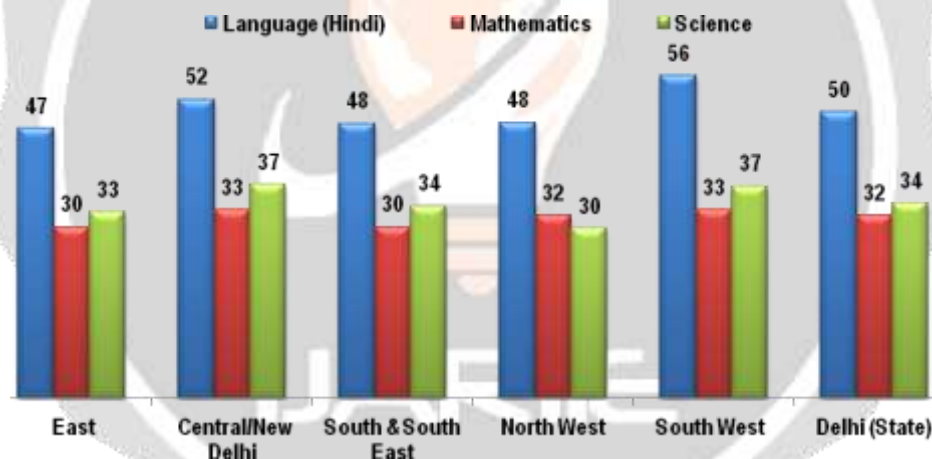
Class III: Performance of students in subjects tested (%)

The above figure shows the comparative performance of class III students in Language and Mathematics. It is observed that South West district has performed better (56%) than all other in Hindi whereas Central/ New Delhi has scored highest in Mathematics (62%).



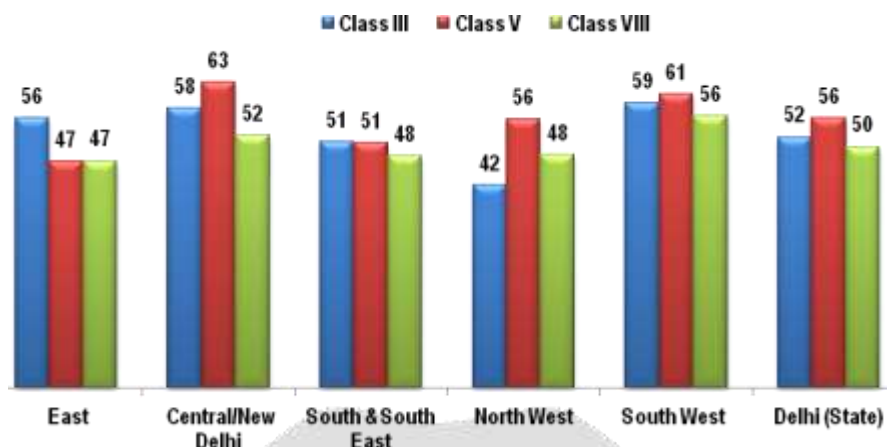
Class V: Performance of students in subjects tested (%)

The Figure given above shows that achievement of students of class V in Language (Hindi) and Mathematics across five sampled districts. The performance of Central / New Delhi district in Language (Hindi) is highest (63%) and District East scored lowest (47%) among districts. It is observed that the performance of Central/ New Delhi is higher than the state average which is 56% only. So far achievement of students in Mathematics is concerned, it is found that Central/ New Delhi and South West district scored equal and also highest (50%) and their performance is higher than the state average. District North West scored lowest (37%) in Mathematics.



Class VIII: Performance of students in subjects tested (%)

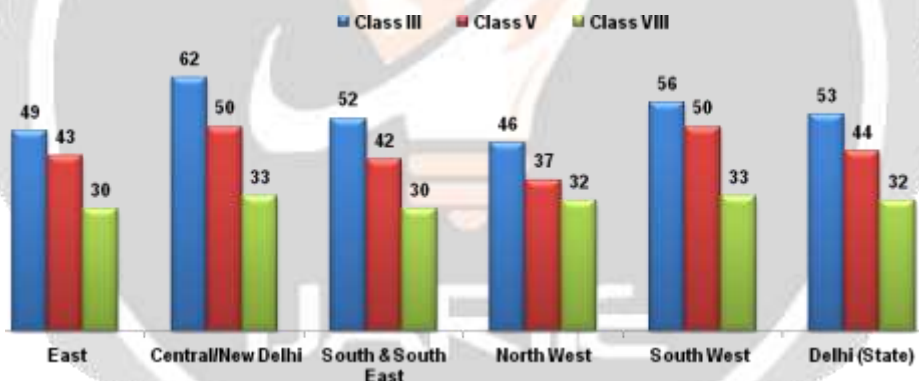
The above figure shows the performance of students in Language (Hindi), Mathematics and Science in Class VIII among different sampled districts of Delhi. It is observed that the achievement of South West district is highest (56%) in Language followed by Central/ New Delhi (52%), North West, South & South East (48%) and District East (47%). So far achievement in Mathematics is concerned it is found that the achievement of South West and Central/ New Delhi is highest (33%) which is just 1% higher than the state average. In Science, the achievement of south West and Central/ New Delhi is highest (37%) which is 3% higher than the state average. The achievement of South & South East in science is 34% followed by 33% in District East.



Performance of students in Language (Hindi) in different sampled classes (%)

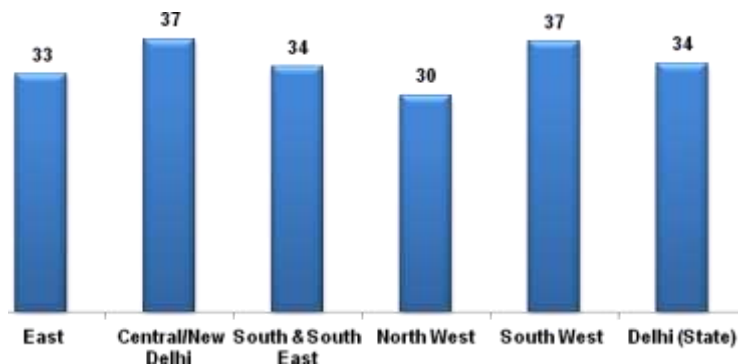
The above figure shows class- wise and district- wise comparison in the achievement in Hindi. It is found that the achievement of class V students of Central/ New Delhi district in Hindi is highest among other districts (63%) which is higher than the state average.

It can be concluded that the achievement of students in class V is comparatively better than class III and Class VIII. The Class VIII students performed very poorly in Hindi in comparison to other two classes.



Performance of students in Mathematics in different sampled classes (%)

The above figure shows class- wise and district- wise comparison in the achievement in Mathematics. It is found that the achievement of class III students of Central/ New Delhi district in mathematics is highest among other districts (62%) which are 9% higher than the state average. It can be concluded that the achievement of students in class III is comparatively better than class V and Class VIII. The Class VIII students performed very poorly in Mathematics in comparison to other two classes. It is also observed that the performance of students declined consistently in the next grade.



Performance of students in Science in Class VIII (%)

The Figure above shows district-wise achievement of students in Science. It is found that achievement of Central/ New Delhi and South West district is highest (37%) followed by South & South East (34%), district East (33%) and achievement of North West District is lowest (30%).

Performance of Students on the Basis of Gender, Location and Management of the Schools:

- **Language:** Girls performed better than boys in Language in class III and VIII where as in class V they performed equally. On the basis of location, no significant differences were observed between urban and rural areas in class III. On an average, students of Delhi Cantonment Board achieved significantly higher scores than those in other school management types in class III, V where as in class VIII it was found that Students of schools managed by Municipal Committee achieved significantly higher scores than those in other school management types.

- **Mathematics:** There were no differences found between girls and boys in class III, V & VIII. On the basis of location, no significant differences were observed in average scores of students of urban and rural areas of class III and V whereas students of class VIII of urban areas performed significantly higher than students of rural areas.

So far performance of Schools by the management is concerned it was found that in class III and V, on an average, students of Delhi Cantonment Board achieved significantly higher scores than those in other school management types. In Class III, Students in schools run by Directorate of Education were performing significantly better than students studying in schools run by Municipal Corporation and NDMC. In class VIII, it was found that on an average, students of Municipal Committee achieved significantly higher scores than their counterparts in other school management types.

- **Science:** No differences were found between the performance of girls and boys. On the basis of location, no significant differences were observed in average scores of students of urban and rural areas. Students of Delhi Cantonment Board achieved significantly higher scores than those in other school management types.

Conclusion

After completion of the study investigator found that achievements of the students was good but Overall, Gender-wise there was no significant difference in the performance of girls and boys except in language of class V where *Girls* supersede *Boys*. So far Location is concerned at Primary level students of urban areas out performed than their rural counterparts except in Mathematics in class V where there was no significant difference was found between the two groups. At Upper Primary level i.e. in class VIII there was no significant difference between the two groups except in Mathematics where students of urban areas out performed than their rural counterparts.

Reference

National Achievement Survey-(2012) Report, NCERT

<http://www.ncert.nic.in/departments/nie/esd/pdf/NAS5cycle3.pdf>

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