

An Abstract  
of the Ph. D. Thesis Entitled  
**A Study of School Ecology of Schools in Delhi  
and Its Impact on Learning Science at  
Upper Primary Level**

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In the present world of post industrial era school as a formal institution plays a pivotal role of educating the children in a consciously planned manner. The school ecology which includes physical and socio psychological environment as well as the general and subject specific competencies of teachers seems to be having a logical bearing on students learning. The basic purpose of the present study is to empirically test the validity of this logical belief. In the present study efforts have been made to study the impact of school ecology on learning of science process and science products by the students of class VIII selected from four different types of schools viz. (i) Kendriya Vidyalaya (ii) Government school (iii) Government aided school (iv) Private schools.

**The major objectives of the study were:**

- I) To study and compare the (i) physical environment and (ii) Socio-psychological environment of four types of schools.
- II) To study and compare the special facilities available for science teaching in the four types of schools
- III) To study and compare General and Science specific teaching competencies of Science teachers of four types of schools.
- IV) To study the impact of school ecology of different types of schools on Achievement in Science
- V) To study the impact of School ecology on learning of Science processes by the students

**Sample:**

The study was carried out in 11 schools (Three each of Knedriya Vidyalaya, Govt. Sr. Sec. Schools and Private Schools and 2 Govt. aided schools) of Delhi. 496 students of class VIII and 11 science teachers whose teaching were observed, constituted the sample of students and teachers respectively.

**Tools:**

The following tools were used to collect data for the study:

1. An adapted version of School Environment Inventory originally developed by Karuna Shankar Mishra.
2. An Adpted version of Teaching Competency Scales having the following two sub-scales (i) General Teaching Competency Scale (ii) Science Specific Teaching Competency Scale.
3. Achievement Test in Science.
4. An Adapted version of Eric Science Process Test.

**Major Findings & Conclusion:**

1. So far the students' perception are concerned, Govt. Aided Schools provide a better social psychological environment and Govt. schools have the least congenial social psychological environment for the children of Class VIII. The other two types of schools lie between the two.

2. Govt. Schools lacks the most in terms of providing physical & infrastructural facilities where as the other three kinds of schools have the similar kinds of physical & infrastructural facilities.
3. Public School Teachers reflected highest level of General teaching competency in the class followed by the teachers from KVs. Whereas teachers from Govt. aided schools showed the lowest level of General teaching competencies followed by their counterparts from Govt. Schools.

The teachers from KVs reflected of having highest level of Science related teaching competencies and the teachers from govt. aided schools showed their lowest level of science related competencies in the class. The teachers from other two types of schools were in between

4. The students of KVs and private schools performed best in the achievement test in science whereas the performance of Govt. School children was lowest in the test followed by the children of govt. aided schools.
5. The understanding of science process by the sample of class VIII students across the type of schools they were studying was not satisfactory. However, the students of KVs were having a better understanding of science process as compared to others.
6. On the whole teaching competencies (both general and subject specific) are found to be significant predictors of both achievement in Science as well as understanding of Science processes.

In the present study teaching competencies emerged as the most important predictor of science learning, so this must be seriously taken care of both by pre-service and in-service programmes for teachers.