

Effect of School Environment on Academic Achievement of Secondary School students

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ABSTRACT

Schools are considered as life building place for everyone. Our society also looks towards the school environment and academic achievement level of the particular schools. Therefore, academic achievement has become an index for child's future particularly so in high competitive world. Different research studies have proved that nurturing home environment and academic achievement supported individuals for better performance. Further world is becoming more and more competitive in all respects. Quality of academic performance had become the key factor for personal progress. Even parents are also desired that their ward must climb the ladder of performance to as high as possible. Because of this desire for a high level of achievement puts a lot of pressure on students, teachers and schools and in general the system of education itself. Hence, the whole system of education revolves round the academic achievement of students though various other outcomes are also expected from the system as well. Similarly, a lot of time and efforts are used for helping students to achieve better in their scholastic areas. Therefore, the present study focuses upon school environment on academic achievement of secondary school students of west district of Sikkim. The study consists of 100 sample students from four senior secondary schools which comprises of two government and two private schools. Also looked upon two urban and two rural schools for the study has been taken care of. From each category of school 25 students of class (X) ten has been randomly selected for the study.

KEY WORDS : Academic Achievement, Nurturing, Environment, Performance

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I. INTRODUCTION

The quality of nation depends on the quality of human resources in particular country. No doubt everybody wants quality education from the institutions. Therefore, two environments home and school share influential space for children where they exists a unique juxtaposition between the two. When children enter the school environment they presented new opportunities in terms of socialization and also cognitive development too. These two opportunities directly impacted on cognitive and affective behaviour in students. Similarly, the physical environment of the school can encourage or discourage social interaction, which in turn facilitates a warm affective environment.

Collectively, the physical, social and affective environments contribute and impacted by the academic environment positively. The school environment plays a key pivotal role in academic excellence of the learners. Recent trends of academic achievement or performance means the behavioural changes which take place within the individual as a result of learning processes and through acquiring experiences of various kinds during the said processes. Quality of academic performance has become the key factor for personal progress and to shown in any other related fields. Thus, every time parents are pushing their children for better performance all the time. The pressure in the child putting by the families, teachers and the friends never encounter by anyone. That is how; sometimes positivity doesn't come in return.

Rationale of the study

A classroom environment is considered to generate all types of qualities in both cognitive and non-cognitive directions. Major findings of the studies reviewed that those existed significant relationship between classroom environment and academic achievement. Therefore, favourable classroom environment is a vital part for effective teaching learning. From this study investigator got a clue to study whether in west district of Sikkim a congenial and conducive environment was available. This was thought of in the context of educational progress of the students. The results indicated that after merger, the Sikkim state has not been able to establish a Board of Examination. Further, this is indicative of the fact that much progress in Sikkim is at stake. Hence, considering the fact, the present study titled "The Effect of School Environment on Academic Achievement of Secondary School Students in relation to gender, management and locale was intended has been studied.

Statement of the problem

The problem is stated as “Effect of School Environment on Academic Achievement of Secondary School Students”.

Objectives of the study

The research study intended to incorporate the following objectives:

- To assess the quality of school environment that provide in the sample schools.
- To study the relation of the school environment in relation to academic achievement.
- To study the differences in the school environment of different schools in relation to locale and management variation.
- To assess the significant differences in the academic performance of sample schools chosen due to differential levels of school environment.

Formulation of Hypotheses

To realize the objectives stated for the study the following hypotheses shall be in Null form as they are akin for testing:

- There does not exist difference in the quality of school environment managed by government and private bodies.
- There does not exist significant difference in the academic achievement of the students in relation to gender, location and management variations.
- School environment does not have any role to play in academic achievement of schools.
- There does not exist significant relationship of students’ academic achievement in relation to differential level of school environment.

Operational definition of the terms

In order to understand the title of the study in more concise manner, the terms used in the study has been defined and clarified in this manner:

‘School’ in the study referred to the formal, standard, organized setting following a specific time table. Likewise ‘Environment’ referred to the classroom condition. For the present research, the classroom environment as conceived by Mishra (2002) has been used. Academic achievement referred to the level of proficiency attained in scholastic work of the students.

Scope and de-limitations

The scope of the study has been accessed the school environment of the various types of schools located at urban and rural areas of west Sikkim a per scale developed by Mishra(2002) component and totally. A profile of each has been prepared accordingly.

The study has delimited to 10% of the total secondary schools of west Sikkim. The schools, belonging to rural, urban locations and those managed by Government and private has been considered, taking into account the objectives of the study mentioned above. The schools of other three districts i.e. East, North and South have not been included because of paucity of time. Therefore, only three intervening variables of gender, management and locale have been considered as the need which was mentioned in the rationale of the study.

Methodology and procedure

The detailed description has been presented in respect of the methodology, sample, tools used, techniques of data analysis and the procedure.

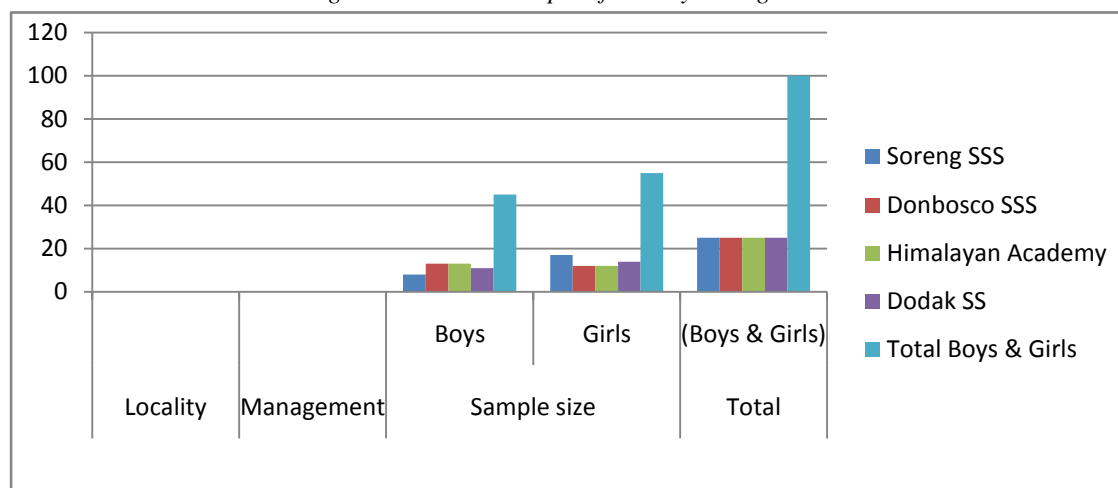
The Sample

The sample consisting of two senior secondary and two secondary schools of a total 11 senior secondary schools and 31 secondary schools in West Sikkim but only class X students from both types of schools has been selected as sample students. These schools have been selected that one school each belonged to rural government, rural private, urban government and urban private category. Sampling has been done randomly and the total sample size is 100. From each category of school 25 students of class X has been randomly selected for the study. The detail of the sample has been presented in table 1.

Table 1. School wise details of the sample:

Schools	Locality	Management	Sample size		Total (Boys & Girls)
			Boys	Girls	
Soreng SSS	Urban	Government	08	17	25
Donbosco SSS	Rural	Private	13	12	25
Himalayan Academy	Urban	Private	13	12	25
Dodak SS	Rural	Government	11	14	25
Total Boys & Girls			45	55	100

Fig.1. school wise sample of the boys and girls



Tools used for the study

In order to assess the school environment of the concerned schools, the School Environment Inventory (SEI) of Mishra (2002) was used. The detailed description of the inventory is mentioned below:

Description of the school environment inventory (SEI) of Mishra (2002)

SEI contains 70 items related to the six dimensions of school environment for example, concepts intuitively judged relevant to the social psychology of the classroom. The six dimensions are:

(a) Creative Stimulation (CRS), (b) Cognitive Encouragement (CEO), Acceptance (ACC), (d) Permissiveness (PER), Rejection (REJ), and (f) Control (CON). Twenty items belong to the CRS while each of the remaining five dimensions has ten items belonging to it. Item occurs in the study as mentioned are: Always, Often, Sometimes, Rarely and Never respectively. Operational definitions of these dimensions are as under:

1. Cognitive Encouragement: it implies “Teachers” behaviour to stimulate cognitive development of student by encouraging his actions or behaviors.
2. Permissiveness: it indicates a school climate in which students are provided opportunities to express their views freely and act according to their desires with no interruption from teachers.
3. Acceptance: it implies a measure of teacher’s unconditional love, recognizing that students have the right to express feelings to uniqueness and to be autonomous individuals. Teachers accept the feelings of students in non-threatening manner.
4. Rejection: it refers to a school climate in which teacher do not accord recognition of students rights to deviate, act freely and to be autonomous persons.
5. Control: It indicates that autocratic atmosphere of the school in which several restrictions are imposed on students to discipline them.

Reliability of SEI

The SEI was administered for various dimensions for the school environment is as under in table 2.

Table 2. Split half reliability Co-efficient (For six scales of SEI)

Scale dimensions	Reliability Co-efficient
1. Creative Stimulation	.919
2. Cognitive encouragement	.797
3. Acceptance	.823

4.	Permissiveness	.673
5.	Rejection	.781
6.	Control	.762

Validity of SEI

School Environment Inventory has been found to possess content validity as measured with the help of views expressed by judges. Because of lack of an appropriate external criterion criterion-related validity could not be established.

Techniques of Data Analysis

Having made the choice of the casual comparative method of research for reasons mentioned, the investigator proceeded to select the research techniques for the study. For data analysis both descriptive and inferential analysis were made. Descriptive analysis of the data included assessment of school climates and academic achievement of schools whereas inferential analysis was made to determine the locale, management wise differences in the school climates, gender wise differences in perception of school climate and relationship study was made to establish cause and effect relationship between differential levels of school environment and their effects on academic achievement too. A sub-sample wise descriptive measure of scores on SEI here as under is in table3 and 4.

Table 3: Sub Sample wise descriptive measures of scores on SEI

Variations	Sub-Sample	N	Mean	SD
Gender	Boys	49	179.81	16.16
	Girls	51	183.72	19.25
Management	Government	50	180.70	10.95
	Private	50	182.90	17.66
Locale	Rural	50	178.90	14.28
	Urban	50	184.70	20.73

On perusal of the above table it is quite clear that sub-sample wise girls compare to boys perceive better school environment and the same observed in case of students of privately managed and urban areas. The above table showed the perception of student towards school environment. The school environment of the urban areas and private schools are better than the rural areas and of government schools. The perception of students towards school environment presented through graphical representation also.

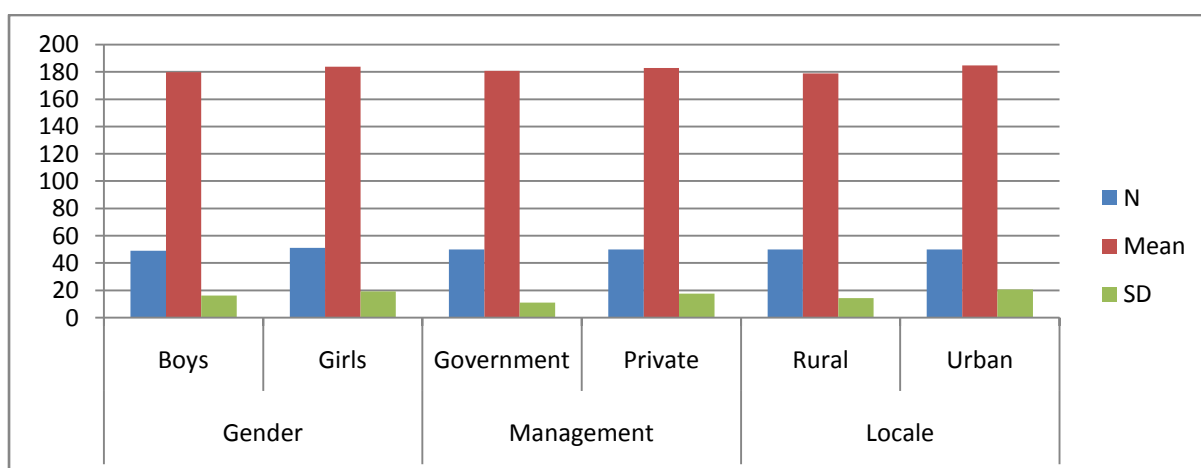


Fig. 2 .Sub-Sample wise mean values of SEI

Table 4: Sub-sample wise and total wise descriptive measures on academic achievement

Variations	Sub-Sample	N	Mean	SD
Gender	Boys	50	56.89	17.33
	Girls	50	54.65	12.07
Management	Government	48	47.40	8.17
	Private	52	63.42	18.70
Locale	Rural	49	57.54	17.78

	Urban	51	54.15	14.17
Total		100	55.73	6.58

From the above table it reveals that boys of private school students and rural students performed better in the academic field. The following figure shows their placement with regard to academic achievement.

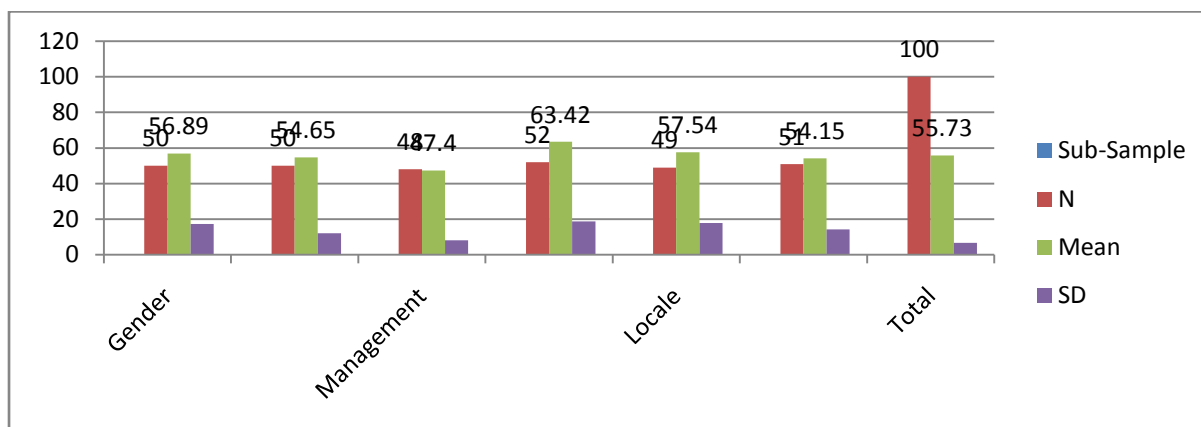


Fig.3. Mean scores on academic achievement of the total sample

Descriptive measures of SEI components of the total schools

The descriptive measures have been calculated to realize the nature of distribution and mean scores on SEI is in table 5. As under:

Table 5: Component wise descriptive measures of score on SEI of the total sample and Sub-sample

Parameters	A	B	C	D	E	F
Mean	54.46	32.53	29.16	22.02	14.3	27.47
SD	7.33	4.01	4.53	3.96	6.11	3.89

The above table showed that the mean of A (Creative Stimulation) is the highest followed by B (Cognitive encouragement), C (Permissiveness) F (Control) D (Acceptance) and E (Rejection) respectively.

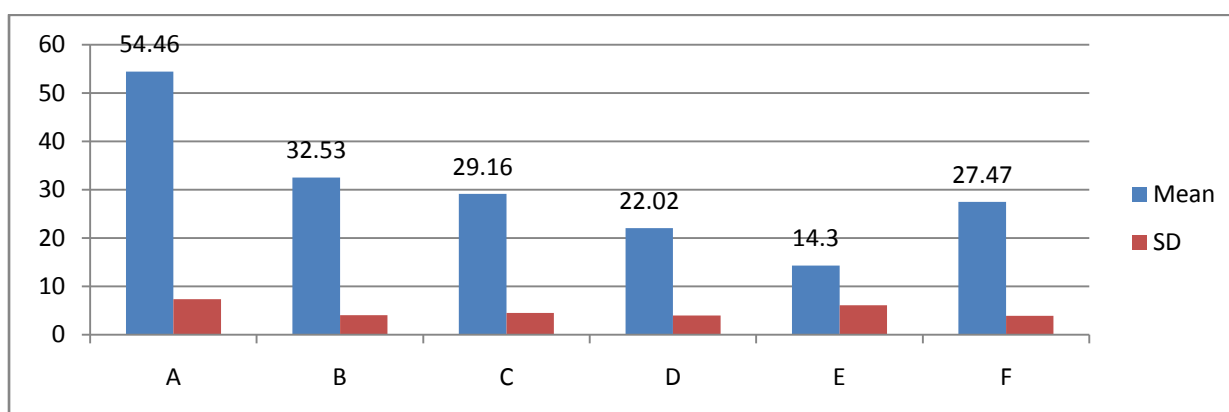


Fig.4. Component wise mean scores on SEI

Management wise differences in the school environment of schools

Amaranth (1980) conducted a comparative study in school environment and found non-significant differences in schools under Government and Private management studies of Pandey (1981), Sahoo (1997), Samal (1986) found significant differences in these two types of schools. Hence, in the present study, attempts were made by the investigator to find out significant differences in the learning environment of these schools. As such, the Null hypotheses that ‘there does not exist significant differences in school environment of schools in the relation to management variation was formulated. For this the ‘t’ ratio calculated were presented in table 6.

Table 6: Summary of t’ ratios showing management wise differences in school environment

Components	Management	N	M	SD	SED	t	Remarks
A	Government	50	56.62	6.31	1.49	0.21	NS

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	Private	50	56.30	8.28			
B	Government	50	32.16	4.19	1.00	0.28	NS
	Private	50	31.88	4.88			
C	Government	50	29.38	4.31	0.90	0.49	NS
	Private	50	28.94	4.77			
D	Government	50	21.58	4.23	0.97	2.52	NS
	Private	50	24.02	5.38			
E	Government	50	14.54	5.06	2.32	0.21	NS
	Private	50	14.06	6.49			
F	Government	50	27.12	4.03	3.79	0.18	NS
	Private	50	27.82	3.75			

On perusal of the table above, non significant result in all the components except component A was obtained. Therefore, the Null hypotheses could not be rejected. This meant that there does not exist any significant differences in school environment in relation to management variation.

There does not exist significant differences in the academic achievement of the schools in relation to gender, locale and management variation. The 't' ratios was calculated and the result presented in table 7.

Table 7: Summary of 't' ratios on Academic Achievement due to gender, locale & management variations

Variations	't' ratios	Remarks
Gender	34.18	S
Locale	9.98	S
Management	4.12	S

The above table revealed that the academic performance in schools of different variations like gender and locale did not show differences in them. the 't' ratio calculated in respect of schools under management variation was highly significant and the private schools showing high superiority over the government schools. The result was in conformity with the learning environment. Therefore, the investigator was inclined to conclude the result as per expectations.

The school environment Inventory of Mishra (2002) was administered to study the learning environments of these schools. Their academic achievement scores were considered for relationship. The result is presented in table 8.

Table 8: Relationship study between School Environment and Academic Achievement

Groups	Relationship between school environment and academic achievement. Product moment correlation (r) T 0.05 for df 48=2.01 t 0.01 for df 48 =2.68	
Government urban	0.29	NS
Private urban	0.98	NS
Government rural	0.49	NS
Private rural	0.27	NS

The above table result revealed that it was evident that none of the correlation coefficient was significant. In some cases, the negative relationship also existed. This was due to the fact that the inter correlation matrix presented in the manual indicated negative relationship of components rejection with creative stimulation, cognitive encouragement and acceptance. Rejection referred to a school environment in which teachers did not accord recognition to students' rights to deviate, act freely and be autonomous persons. Hence, the negative relationship obtained would be usual. Keeping this in view, the investigator desired to conclude that there existed positive relationship between the learning environments of the schools and academic achievement.

Major findings of the study

1. There does not exist significant difference in the school environment in relation to locale variation.
2. There does not exist any significant difference in school environment in relation to management variation.

3. There does not exist significant difference in the academic achievements in relation to gender and locale variation. However, the academic performance of schools in relation to management variations was remarkably significant.

4. There existed positive relationship between the learning environment of the schools and academic achievement.

II. Discussion of Results

The 't' ratio have been calculated on academic achievement in relation to gender and management variation was highly significant and private schools showing high degree of superiority over the government schools. Therefore, the Null hypotheses could not be rejected. A result of relationship between home environment and academic achievement appears negative on rejection, creative stimulation, cognitive encouragement and acceptance. As in the case of component A (Creative Stimulation) the 't' ratio was significant at 0.05 level of significance.

III. Conclusion

After administering the test in government schools as well as private management schools found that academic achievement of private school students are better achiever in respect of their learning styles while in government school teachers are professionally trained than earlier schools. In relation to school environment there is no such difference as per calculated SEI scores. The results obtained from the study indicate that there exists a positive relationship between school environment and academic achievement and this can be attributed to management variation of private schools. Thus, it can be concluded that a conducive and congenial environment fosters better academic achievement.

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