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School environment and academic achievement of rural and urban standard IX students

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Abstract

The present investigation was about the Effect of School Environment on Academic Achievement of Class-IX students. 120 boys and 120 girls both from rural and urban area were selected randomly as the sample of this present investigation. Again, to serve the purpose 4 schools were selected randomly using Disproportionate Random Sampling Method from rural and urban areas of 24 Parganas and Kolkata respectively. Two standardized test namely t-Test and Correlation was administered for data analysis. The result of the present investigation reveals that there is no significant gender difference in respect to Academic Achievement which exists both in Urban and Rural Schools students but significant difference exists in respect to Academic Achievement between two locations i.e., Urban and Rural Schools. Also, there is significant relation between School Environment and Academic Achievement which exists both in Urban and Rural Schools.

Keywords: School environment, academic achievement

Introduction

According to Dewey (1926) 'Education is a continuous process of experiencing and of revising or non-revising experiences It is the development of all those capacities in the individual, which enables him to control his environment and fulfill his possibilities' (Y. K. Singh, p.22). The forces of environment begin to influence the growth and development of the individual right from the womb of the mother. Educational process of development occurs in physical, social, cultural and psychological environment. A proper and adequate environment is very much necessary for a fruitful learning of the child. Especially the home and the school should provide the necessary stimulus for learning experience. The child spends most of his time in school and here his environment is exerting a different influence on performance through curricula, teaching techniques, relationship. (Lawrence and Vimala, 2012 ^[4,5]).

School Environment

School environment, in simple terms, means the overall surrounding of a school that comprises all the components of the school right from the infrastructure to the community service activities. School environment attempts to provide an environment that is as rich and active and joyous as possible with opportunities of play, social co-operation, mutual work, creative and constructive activities and safe and secure environment to the child.

School environment plays an important role in providing the child a decent atmosphere for their complete development. A healthy school environment is the only way for the healthy development of the child. As such school environment comprises a number of elements as follows:

- The physical environment consists of providing a consciously structured and pre-planned environment that includes proper classroom space, proper lights, ventilations, desks and benches, blackboard and other teaching aids.
- Infrastructure must also be properly planned according to the needs and demands of the school.
- The teacher student ratio must be maintained for a well-balanced school environment.
- Recreational facilities must be made available, so that children are given opportunities for their all-round development.

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- There must be proper arrangement of library and laboratories so that the students can get an easy access to their academic needs.
- It also includes programs like school exhibitions, educational tours, etc.
- It also includes the proper arrangements of health facilities (safe drinking water and toilet facilities for boys and girls).
- The community service programmes undertaken by the school also plays an important element of school environment.

Academic Achievement

Academic achievement is a measure of knowledge gained through formal education, usually indicated in test scores, grade, grade point, average and degrees. Here, achievement level of students is judged by the marks that the students have scored in the examination. In other words, it refers to pupils' attainment in the so-called academic subjects. It is concerned with quantity and quality of learning attained in a subject after a definite period of instructions. At each stage in schools, some measures of achievement are used to assess the student performance and further opportunity for study is depend on it.

There are two determinants of academic achievement

Innate Factors: These include intelligence, motivation, creativity, learning, aptitude, level of aspiration, and physical and mental health.

Environment Factors: Home or family environment, community, school environment, classroom environment, friends, socio-economic status. (Borthakur and Kalita, 2015) ^[1]. As a student spends most of his life at school, the school environment is highly responsible for the inculcating of great values in him. The Kothari Commission (1964-66) has beautifully said, "The destiny of India is now being shaped in her classrooms" (p.2). As students are the backbones of the nation it is important to maintain a healthy school environment. (Lawrence and Vimala, 2012) ^[4, 5].

Review of Literature

In the present investigation, studies relevant to the topic are presented below chronologically. Very few work related to the present topic has been done in Indian context, so most of the studies were found to be done in abroad.

Singh and Singh (2014) studied to find out the "Academic Achievement of adolescents in relation to their Perception of Classroom Environment.". Finding also revealed that there is a significant relationship between academic achievement and a classroom environment among adolescents with respect to locale and gender. Finding shows that Academic Achievement of Urban Student is greater than that of rural Students and in the favour of male adolescents of urban school adolescent. Finding also shows that significant difference in the classroom environment of male and female adolescents with respect to locale. Finding revealed that classroom environment is in the favour of urban female adolescents than their counter parts and male adolescents higher than that of female adolescents. Finding also revealed that Non significant relationship is found in the classroom environment of adolescents with respect to gender.

Wang and Holcombe (2014) ^[11] examined the relationships among middle school students' perceptions of school environment, school engagement, and academic achievement. The authors found that students' perceptions of school

environment influenced their academic achievement directly and indirectly through the three types of school engagement. Specifically, students' perceptions of school characteristics in seventh grade influenced their school participation, identification with school, and use of self-regulation strategies in eighth grade that occur therein and, in turn, influenced students' academic achievement in eighth grade.

Hayes, Darensbourg, Castillo and Blake (2014) ^[2] explored how these parent and peer beliefs and behaviours influenced Latino adolescents' achievement values, school behavioural engagement, and school achievement. Results indicated that the beliefs and behaviours of parents and peers significantly predicted two sets of achievement values (Subjective Task Values & Economic Benefits to Education). However, student achievement was only related to subjective task values and behavioural engagement.

Saini (2013) ^[8] attempted to find out the effect of home environment, school environment and study habits on academic achievements of scheduled caste students. The findings of the study reveal that there was no significant relationship between study habit and academic achievement. Home environment had significant effect on academic achievement but school environment does not play a significant role in academic achievement.

Torupere (2013) ^[10] studied on school's physical environment and secondary school students' discipline in Bayelsa State of Nigeria. The findings showed that class size does not significantly influence students' discipline in terms of respectful behaviour, honest behaviour and constructive behaviour; but significantly influence students' behaviour in terms of attendance.

Rani, Kapri and Ahmad (2013) ^[7] investigated on 400 underachievers in science of 9th standard students selected from 8 Govt. and 8 Govt.-Aided secondary schools of Faridabad district of Haryana. The result revealed that there is no significant correlation between creative stimulation dimension of school environment and academic stress among secondary school students. Facilitating better Creative Stimulation school environment means enhancing scholastic achievement in science. The male underachievers in science of secondary schools perceived higher academic stress than females.

Lawrence and Vimala (2012) ^[4, 5] probed to find the relationship between School Environment and Academic Achievement of standard IX students. Finding shows there was no significant relationship between School Environment and Academic Achievement of standard IX students.

Jones and Ezeife (2011) ^[3] assessed the relationship between school size and academic achievement of elementary school students in Ontario, Canada. There was no statistically significant correlation between school size and student achievement. However, there were significant correlations with respect to levels of performance in both Grades three and six in some curricular areas. Analysis at each independent achievement level revealed that the mean percentage of students achieving at stipulated provincial standards in Grade three writing and in Grade six reading, writing and mathematics were highest in large sized schools (schools with more than 420 students). Results indicated that the mean percentage of students performing above provincial standards in Grade six reading and writing was also highest in large schools. Students in medium sized schools (between 246 and 420 students) also had the highest mean percentage of students performing above provincial standards in Grade three writing and in Grade six mathematics.

Meece, Anderman and Anderman (2004) [6] examined the influence of classroom and school environments on students' academic motivation and achievement. Result suggests that elementary and secondary students show the most positive motivation and learning patterns when their school settings emphasize mastery, understanding, and improving skills and knowledge. Whereas school environments that are focused on demonstrating high ability and competing for grades can increase the academic performance of some students.

Objective

The present study aims to find out the relationship between School Environment and Academic Achievement of Standard IX students selected from two Rural and two Urban Bengali and English medium schools.

Hypotheses

- Ho.1:** There is no significant difference in respect to Academic Achievement between Urban and Rural Schools.
- Ha.1:** There is significant difference in respect to Academic Achievement between Urban and Rural Schools.
- Ho.2:** There is no significant gender difference in respect to Academic Achievement of (i) Urban School Students and (ii) Rural School Students.
- Ha.2:** There is significant gender difference in respect to Academic Achievement of (i) Urban School Students and (ii) Rural School Students.
- Ho.3:** There is no significant relation between School Environment and Academic Achievement of (i) Urban School Students and (ii) Rural School Students.
- Ha.3:** There is no significant relation between School Environment and Academic Achievement of (i) Urban School Students and (ii) Rural School Students.

Methods

Operational Definition

Independent Variable \Longrightarrow School Environment

According to Mick Zais (2011), “ School Environment means the extent to which school settings promote student safety and student health, which may include topics such as the physical plant, the academic environment, available physical and mental health supports and services and the fairness and adequacy of disciplinary procedures, as supported by relevant research and an assessment of validity.”

DEPENDENT VARIABLE \Longrightarrow ACADEMIC ACHIEVEMENT

Dependent Variable Academic Achievement

Academic Achievement is the outcome of education-the extent to which a student, teacher or institution has achieved their educational goals. Also it is a measure of knowledge gained in formal education usually indicated by test scores, grade, grade points, average and degrees. Here, the achievement level of the student is judged by the marks that the students have scored in their quarterly examinations.

In the present investigation the samples are selected randomly from the population in the combination of two strata which are as follows

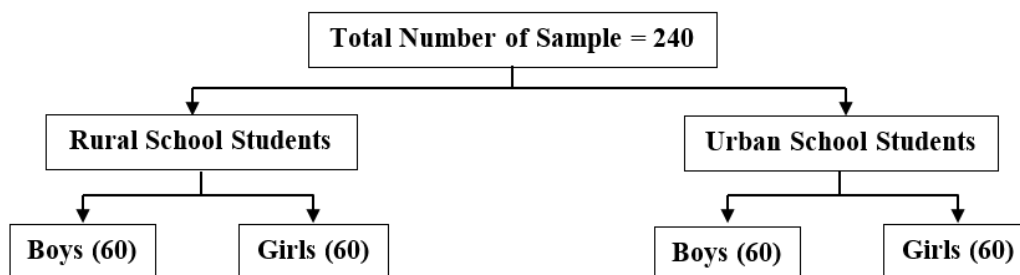
- Urban English Medium Schools
- Rural Bengali Medium Schools

Since, the substrata of the drawn sample are not necessarily distributed according to their proportionate weight in the population from which they were randomly selected, i.e. some of the strata of the population may be overrepresented or some may be underrepresented, so the present investigation is based on Disproportionate Stratified Random Sampling Method.

Here, the population was divided into two different strata which are as follows

- Urban English Medium Schools
- Rural Bengali Medium Schools

The schools were selected randomly from Kolkata (for Urban English Medium Schools) and 24 Parganas (for Rural Bengali Medium Schools).



Characteristics of Sample

Inclusion Criteria

- Samples are randomly selected from class-IX of different schools.
- All the samples are of approximately same age, i.e. 14 years.
- All the samples are from same Board i.e. West Bengal Board of Secondary Education.
- All the samples follow same syllabus in their curriculum.
- All the samples are physically and mentally stable enough to continue their studies.
- All the samples are randomly selected only from Higher Secondary Schools.

Exclusion Criteria

- All the samples which are randomly selected in the present investigation do not stay in the hostel.
- All other samples of different classes, except class-IX were not incorporated in the present investigation.
- All other samples of different age group were not included in this present investigation.
- Samples which are mentally or physically challenged are excluded.
- Samples studying in co-education were excluded.

Data Collection Method

In the present investigation Questionnaire Method was employed using a Standardized Test.

A Standardized Test is a structured technique used to generate a selected behaviour. Standardized Test refers to a process in which the observational procedures, administrative procedures, equipment and material and scoring rules have been fixed in such a way that the same testing procedure occurs exactly at different times and places.

Two Standardized Tests used in the present investigation are as follows

- School Environment Inventory (SEI-M) by Dr. Karuna Shankar Misra.
- General Classroom Achievement Test (GCAT) by Prof. A. K. Singh and Dr. A. Sen Gupta.

Description of the Inventories

School Environment Inventory (Sei-M)

The present ‘School Environment Inventory (SEI)’ was developed by Dr. Karuna Shankar Misra, is an instrument designed to measure the psycho-social climate of schools as perceived by the pupils. SEI has items belonging to six dimensions of the school environment, i.e.

- Creative Stimulation (CRS)
- Cognitive Encouragement (COE)
- Permissiveness (PER)
- Acceptance (ACC)
- Rejection (REJ)
- Control (CON)

SEI contains 70 items related to six dimensions of school environment. Twenty items belong to the (CRS) dimension while each of the remaining five dimensions has ten items belonging to it.

The instrument requires pupils to tell the frequency with which a particular teacher pupil interaction behaviour is expressed in his or her school i.e. he/she is requested to tell whether a particular teacher-behaviour (as mentioned in an item) occurs – ‘Always’, ‘Often’, ‘Sometimes’, ‘Rarely’ And ‘Never’.

There is no time-limit for this tool.

School Environment Inventory can be administered in individual or group settings. They should be told to put ‘x’ mark on any cell indicating the five responses.

Scoring: Assign 4 Marks to ‘Always’, 3 Marks To ‘Often’, 2 Marks To ‘Sometimes’, 1 Marks To ‘Rarely’ And Zero To ‘Never’ responses. The particular item belongs to which area is indicated by alphabets near the serial no.

General Classroom Achievement Test (GCAT)

This test was developed by Prof. A. K. Singh and Dr. A. Sen Gupta. The maximum possible score on this test is also 100. The test, too, consists of three sections, namely, English Achievement Test (EAT), Science Achievement Test (SAT) and Social Science Achievement Test (SSAT). The EAT has a maximum of 35 score, SAT has a maximum of 35 score and the SSAT has a maximum of 30 score.

The obtained score is converted into percentile points to know the description of Academic Achievement with the help of interpretation table from the manual.

Statistical Methods: For analysing the data statistically, Mean, Standard Deviation, t-Test, Correlation were applied.

Results and Discussions

Successful completion of collection of data was followed by data analysis (using statistical technique), classification and tabulation. The present investigation was about the Effect of School Environment on Academic Achievement of Class-IX students. 120 boys and 120 girls both from rural and urban area were selected randomly as the sample of this present investigation. Again to serve the purpose 4 schools were selected randomly using Disproportionate Stratified Random Sampling Method from rural and urban areas of 24 Parganas and Kolkata respectively. Two standardized test namely t-Test and Correlation was administered for data analysis. The following are the tables of data analysis: -

Table 1: Mean and standard deviation value of school environment inventory of two gender groups in urban and rural area.

Dimensions of School Environment Inventory	Urban Schools						Rural Schools					
	Boys		Girls		Total		Boys		Girls		Total	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Creative Stimulation	62.88	7.34	60.81	8.24	61.85	7.84	53.86	10.66	49.73	7.88	51.8	9.56
Stan. Score	7		7				6		5			
Level	High		High				Average		Average			
Cognitive Encouragement	32.56	4.58	32.7	6.41	32.63	5.55	29.18	5.82	27.43	5.45	28.30	5.68
Stan. Score	6		6				5		4			
Level	Average		Average				Average		Average			
Acceptance	29.55	5.22	29.03	5.04	29.29	5.12	25.3	5.56	24.7	6.49	25	6.03
Stan. Score	7		7				5		5			
Level	High		High				Average		Average			
Permissiveness	25.4	4.66	25.16	5.65	25.28	5.16	21.98	4.92	21.28	5.02	21.63	4.96
Stan. Score	7		7				6		5			
Level	High		High				Average		Average			
Rejection	11.73	5.55	13.53	5.72	12.63	5.69	14	6.27	16.06	6.53	15.03	6.45
Stan. Score	4		4				5		5			
Level	Average		Average				Average		Average			
Control	28.38	4.07	26.55	5.32	27.46	4.81	26.1	4.85	23.86	4.46	24.98	4.77
Stan. Score	6		5				5		5			
Level	Average		Average				Average		Average			

According to the above table, it is clear that the mean score of perception towards various dimensions of School Environment is different according to gender and location. Both Boys and Girls from Urban English Medium Schools

scored high in different dimensions of School Environment, such as Creative Stimulation, Acceptance and Permissiveness whereas they scored average in the other three dimensions of School Environment i.e. Cognitive Encouragement, Rejection

and Control.

Again, both boys and girls from Rural Bengali Medium Schools scored average in all the dimensions of School

Environment (Creative Stimulation, Cognitive Encouragement, Acceptance, Permissiveness, Rejection and Control).

Table 2: Mean and Standard Deviation value of General Classroom Achievement Test of two gender group in urban and rural area

Total Score of Academic Achievement	Urban Area				Rural Area			
	Mean	S.D.	Percentile	Description	Mean	S.D.	Percentile	Description
Boys	91.01	6.89	P95	Very Superior	52.66	10.39	P60	Average
Girls	90.05	6.61	P90	Very Superior	50.85	11.26	P60	Average
Total	90.53	6.74	P90	Very Superior	51.75	10.83	P60	Average

According to the above table, it is clear that mean score of Academic Achievement of both boys and girls in Urban Schools are very superior whereas the mean score of Academic Achievement of both boys and girls in Rural Schools are average.

Again, the total mean score of Academic Achievement of Urban Schools are very superior whereas the total means score of Academic Achievement of Rural Schools are average.

Table 3: t-Test Table for Significant difference in Academic Achievement between Urban and Rural Schools

t-Calculated	df	Level of Significance	t-Critical	Decision
23.55	238	5%	1.97	Significant

From the above table it is evident that significant difference exists between Academic Achievement of two locations i.e. Urban and Rural Schools, so H_0 is rejected and H_a is accepted. This means that Academic Achievement of Urban English Medium Schools differ from Rural Bengali Medium Schools. It may be due to the reason that the opportunities that both boys and girls receive in Urban Schools is quite higher than that of the boys and girls in Rural Schools, which may be in terms of proper school environment, qualitative faculties, library facilities, economical expenditure towards education, proper nutrition, communication system, parental aspiration, easy access to updated technologies like computer, etc. whereas many children in rural areas do not even get two meals in a day and thus they have the burden to earn for their

survival. So for them education is quite luxury. Also those children in rural areas who attend schools face several obstructions like limited source of economy to buy books and other necessities, limited faculties, no access to updated technologies, sometimes they don't even get a proper school building where they can comfortably sit and study. Often due to rainfall and other natural calamities school will remain suspended for many days. In spite of all other the problems, the major one is the economic problem which obstructs the rural children to compete with the children in urban areas. Thus, the children in urban areas not only excel academically but in other fields also in comparison to the children in rural areas.

Table 4: t-Test Table for Significant Gender difference in Academic Achievement of Urban School Students

t Calculated	df	Level of significance	t-Critical	Decision
0.78	238	5%	1.97	Not Significant

From the above table, it is evident that No Significant difference exists between Academic Achievement of two gender group in Urban Schools i.e. H_0 is accepted and H_a is rejected. This means that Academic Achievement of both boys and girls does not differ in Urban Schools. It may be due to the equal opportunities that both boys and girls receive in terms of education, co-curricular activities, economical

expenditure towards education and all other facilities that are essential for their academic achievement and also for their all-round development in different dimensions like physical, social, mental, emotional, moral, etc. Also it seems that gender discrimination towards education is quite low in urban areas.

Table 5: t-Test Table for Significant Gender difference in Academic Achievement of Rural School Students

t Calculated	df	Level of significance	t-Critical	Decision
0.92	238	5%	1.97	Not Significant

From the above table it is evident that No Significant difference exists between Academic Achievement of two gender group in Rural Schools i.e. H_0 is accepted and H_a is rejected. This means that Academic Achievement of both boys and girls does not differ in Rural Schools. It may be due to the reason that several national level plans and programmes have been organized and executed earlier and still on the process for the wellbeing of women and child community, specially the girl child. Also several laws came up to stop the

evil practice of gender discrimination towards girl child from the very foetal period. Thus now-a-days girls are getting almost equal opportunities like boys for their all-round development in rural areas. So the perception towards education of the girl child in rural areas has changed a lot. They are now allowed to go to school and encouraged to hold a respectable position in the society. Thus there is no such significant gender difference in terms of academic achievement in rural schools.

Table 6: Correlation Table for Significant relation between School Environment and Academic Achievement of Rural School Students

Calculated r	df	Level of Significance	r-Critical	Decision
0.40	118	5%	0.17	Significant

From the above table, it is evident that a significant relation exists between School Environment and Academic Achievement of Rural Bengali Medium Schools, so H_0 (ii) is rejected and H_a is accepted. This means that there is a definite relation between School Environment and Academic Achievement of Rural Bengali Medium Schools. It may be due to the fact that students in Rural Bengali Medium Schools receive maximum support and co-operation from their schools

only. Teachers even provide books to those students who cannot afford to buy books. Also Government has adopted several policies to encourage the children to attend schools in rural areas, specially the girl child by providing mid-day meal or giving money to those families who will send their daughters to attend schools. Thus, undoubtedly Rural Schools play a great role towards Academic Achievement of children in rural areas.

Table 7: Correlation Table for Significant relation between Academic Achievement and School Environment in respect to Creative Stimulation of Urban Schools Students

Calculated r	df	Level of Significance	r-Critical	Decision
0.08	118	5%	0.17	Not Significant

From the above table, it is evident that no significant relation exists between School Environment in respect to Creative Stimulation and Academic Achievement of Urban English Medium Schools, so H_0 is accepted and H_a is rejected. This means that there is no relation between School Environment in respect to Creative Stimulation and Academic Achievement of Urban English Medium Schools. This may be due to the reason that the guidance that students of Urban Schools receive may not be enough to develop the creative thoughts of children in urban schools. There are also several other factors which helps them to develop their creative thinking like participating in some scientific exhibitions, doing various projects, participating in different talent hunt tests, involvement in some co-curricular activities, parental aspiration, parental guidance, also guidance provided by seniors, siblings, private tutors, etc., so beside their school there are lots of sources which contribute towards the creative development of students in urban schools.

- There is no significant difference between two gender groups in respect to Academic Achievement of Urban Schools.
- There is no significant difference in respect to Academic Achievement between two gender groups of Rural Schools.
- The significant difference exists in respect to Academic Achievement between two locations i.e. Urban and Rural Schools.
- There is significant relation between School Environment and Academic Achievement of Urban Schools and Rural Schools.
- There is significant relation between School Environment and Academic Achievement of Rural Schools.

Conclusions

Successful completion of collection of data was followed by data analysis (using statistical technique), classification and tabulation. The present investigation was about the Effect of School Environment on Academic Achievement of Class-IX students. 120 boys and 120 girls both from rural and urban area were selected randomly as the sample of this present investigation. Again to serve the purpose 4 schools were selected randomly using Disstratified Random Sampling Method from rural and urban areas of 24 parganas and Kolkata respectively. Two standardized test namely t-Test and Correlation was administered for data analysis. Thus the following conclusions of the present investigation are as follows

- Both Boys and Girls from Urban English Medium Schools scored high in different dimensions of School Environment, such as Creative Stimulation, Acceptance and Permissiveness whereas they scored average in the other three dimensions of School Environment i.e. Cognitive Encouragement, Rejection and Control.
- Again, both boys and girls from Rural Bengali Medium Schools scored average in all the six dimensions of School Environment (Creative Stimulation, Cognitive Encouragement, Acceptance, Permissiveness, Rejection and Control).
- The total mean score of Academic Achievement of Urban Schools are very superior whereas the total mean score of Academic Achievement of Rural Schools are average.

References

1. Borthakur B, Kalita P. School Environment and its impact on Academic Achievement of Secondary Students: School Psychology Enhancing Psychological Competencies. Puducherry Co-op. Book Society Ltd, Puducherry, India, 2015.
2. Hayes DM, Darenbourg A, Castillo LG, Blake JJ. Examining the Academic Achievement of Latino Adolescents, 2014. Retrieved from: <http://jea.sagepub.com/content/35/2/141.abstract> on 5/5/2015.
3. Jones KR, Ezeife N. School Size as a Factor in the Academic Achievement of Elementary School Students, 2011. Retrieved from: <http://www.scirp.org/journal/PaperInformation.aspx?PaperID=8354#.VUTq0Y6qqK0> on 3/5/2015.
4. Lawrence ASA, Vimala A. School Environment and Academic Achievement of Standard IX Students. Journal of Educational and Instructional Studies in the World. 2012; 2(3):22. ISSN: 2146-7463.
5. Lawrence ASA, Vimala A. School Environment and Academic Achievement of Standard IX Students. Journal of Educational and Instructional Studies in the World. 2012; 2(3):2146-7463.
6. Meece JL, Anderman EM, Anderman LH. Classroom Goal Structure, Student Motivation and Academic Achievement. Annual Review of Psychology. 2004; 57:487-503.
7. Rani N, Kapri UC, Ahmed J. A Study of Creative Stimulation School Environment and Academic stress with respect to Underachievers in Science at Secondary School Level. Advanced International Research Journal

- of Teacher Education. 2013; 1:225-275.
8. Saini M. A Study of Academic Achievement of Scheduled Caste Secondary School Students in relation to Study Habits, Home Environment and School Environment, 2013. Retrieved from: <http://shodhganga.inflibnet.ac.in/handle/10603/6854> on 5/5/2015.
 9. Singh AB, Singh J. A Study of Academic Achievement of Adolescents In Relation To Their Perception of Classroom Environment in Punjab, 2014. Retrieved from: <http://www.confabjournals.com/confabjournals/images/207201475153.pdf> on 5/5/2015.
 10. Torupere K. School Physical Environment and Secondary School Students discipline in Bayelsa State, Nigeria, 2013. Retrieved from: <http://www.indianjournals.com/ijor.aspx?target=ijor:ijrss&volume=3&issue=3&article=002> on 5/5/2015.
 11. Wang MT, Holcombe R. Adolescents Perception of School Environment, Engagement and Academic Achievement in Middle School, 2014. Retrieved from: <http://aer.sagepub.com/content/47/3/633.short> on 3/5/2015.