



SCHOOL ENVIRONMENT AND ACADEMIC ACHIEVEMENT: AN ANALYTICAL STUDY

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Abstract: School environment emerged as one of the salient variables in the field of educational research. It plays crucial role in nurturing the potentialities of learners for successful life. It has been a significant construct to assess because of its linkage to psychological, social, and academic outcomes (Anderson, 1982; Koth, Bradshaw, & Leaf, 2008; Kuperminc, Leadbeater, Emmons, & Blatt, 1997). This study aims to explore the inherent environmental status of schools and academic achievement of students at higher secondary level following descriptive survey method and administering 'School Environment Inventory' developed by Dr. K. S. Misra (Allahabad) on a sample of 480 students selected by random sampling technique from 40 higher secondary schools of Jagadishpur Block, Bhagalpur District in Bihar state. Under parametric statistical techniques, frequency was counted and converted to the percentage for the data analysis. The study reveals that Control and Rejection are the strong dimensions of school environment whereas Acceptance and Rejection are the weak dimensions respectively. At higher secondary level, the status of excellent school environment is very low and those of average status are relatively maximum. The percentage of students with excellent academic achievement is lower than those of with average academic achievement status.

Index Terms: School environment, academic achievement, higher secondary level, analytical study.

INTRODUCTION

All the schools share an important space in the life of a learner after the home and there exists various elements such as physical or infrastructural facilities and human resources which contribute to the environment of a school. Human resources such as principal, supporting staffs, attendants, guardians, community persons, teachers, students and their engagement, participation, spirit and intimacy; and Physical resources or infrastructural facilities such as school plant or site, playground, library, laboratory, lavatory, toilet, drinking water facility, records, registers, reports and documents etc. are helpful sources in shaping students' creative and critical thinking, making them academically, psycho-socially and emotionally strong human being. Within and beyond the boundaries of a school, there exists an internal and external environment and these are ultimately known as school environment. Thus, School environment is a multi-aspectual construct consisting of various elements: the human, physical, and work coordination. It provides a measure of the quality and quantity of the cognitive, emotional and social support available to the students during their school life in terms of teacher-pupil interactions. A student spends valuable time in school and the environment in turn influences his performance through activities, interactions and relationship between teachers and students.

LITERATURE REVIEW

Norris M. Haynes and Muriel Hamilton-Lee (1989) conducted a study on School climate enhancement through parental involvement. A significantly greater improvement in students' and parents' perceptions of classroom and school climate was indicated in the special schools than the control or experimental schools. A significantly greater improvement in achievement and attendance of students was also found in such schools.

Angus J. MacNeil, Doris L. Prater & Steve Busch (2009) studied the effects of school culture and climate on student achievement. They investigated whether three categories of schools Exemplary, Recognized and Acceptable based on academic achievement of students differ in their school climates, as measured by the 10 dimensions of the OHI with a sample of 29 schools in the suburban district at southeast Texas. Significant differences were found on all the ten dimensions of the OHI; Exemplary schools were outperforming than Acceptable schools. With healthy learning environments, students achieved higher scores on standardized tests in schools. The information related to school climate assessments were very important to focus on the process of improving the school's academic performance.

Subhash Chander Khullar (2009) in a study on Organizational Climate and Educational Environment of Senior Secondary Schools as Perceived by Principals, Teachers and Students. For govt. schools, there was a significant difference in each dimension except hindrance and consideration. In Pvt. Schools, there were significant differences in all dimensions except hindrance.

Nancy Linda & R. Marak (2011) in the Secondary Schools of Shillong Town studied the Socio – Emotional Climate and revealed the average perception of the schools. A difference in the perception of boys and girls of their social and emotional climate occurred.

A. S. Lawrence and A. Vimala (2012) pursued a study on School Environment and Academic Achievement of Standard IX Students. A positive negligible relationship was observed between the school environment and academic achievement. There was no significant difference in the school environment in terms of gender, medium of instruction. But, there was a significant difference in the school environment in terms of locality of school. The urban students perceived better school environment than those of the rural students.

Chiaki Konishi, Tracy K. Y. Wong, Ryan J. Persram, Luis Francisco Vargas-Madriz & Xuedi Liu (2015) in an article “Reconstructing the concept of school climate” focused on what constitutes school climate from students' perspectives. They selected 22 grade 8 to 11 students (ages 13–18) from a secondary school in Canada to participate in semi-structured focus group discussions (6 to 8 students per group) to describe their perceptions of school climate from their own perspectives. The students were later on introduced to ten school climate dimensions identified in a previous study and asked to remove some dimensions or add new ones. Data were written and analyzed in depth, using thematic coding. Findings: The analysis rendered fifteen dimensions out of which seven were of the previous study. The emerging eight dimensions were unique facets to emphasize the students' experiences and the values in school climate. These added the availability of school resources, leadership, teacher professionalism, student-teacher relationships, a sense of order, and support. Conclusively, School climate played a critical role in hard work to promote a positive school climate for students. This study highlighted the need for multi-reporter methodologies to fully comprehend the complexities of school climate, thereby helping to inform policy makers and professionals that aim to improve school climate.

Anshu Narad & Bilkees Abdullah (2016) undertook Parental Encouragement and School Environment as influencers to study Academic Performance of Senior Secondary School Students. They reported that there was a similarity in academic performance of senior secondary school girls studying in co-education schools and girls' school. There was higher permissiveness in senior secondary co-educational schools as compared to the girls' school, while girls' schools had higher control as compared to the co-educational schools. Parental encouragement and school environment were significantly and positively related to with academic performance of senior secondary school girls.

S. Anbalagan (2017) conducted a study on the impact of school environment on academic trajectory of higher secondary school students. Significant difference was observed between genders about school environment. Urban students received better school environment than rural students.

Mohd Ziaul Haq Rafaqi & Zainab Musheer (2018) conducted a research on Students Perception towards School Environment. The study revealed that the perception of secondary school students towards School Environment differed significantly with respect to the locality, type and medium of instruction in the schools.

Simranjit Kaur (2020) undertook A Comparative Study On School Environment As Experienced By Adolescents In Urban And Rural Government Co-Educational Schools Of Malwa Region In Punjab State Of India. The results of the study reflected

significant difference in the six dimensions namely creative stimulation, cognitive encouragement, acceptance, permissiveness, control and rejection of school environment experienced by adolescents in urban and rural government schools.

Zehui Yu and Xiaodi Jiang (2022) pursued a Fuzzy Set Qualitative Comparative Analysis Based on the Perspective of Education System to report how school climate affects student performance. The analysis reported that the punctuality of students and the classroom discipline could explain the good performance of students. In comparison to a single factor, the combination of multidimensional school climate had a higher explanatory power.

OBJECTIVES

The set objectives of this study are as follows:

- 1) To determine dimension wise status of the school environment.
- 2) To explore the status of school environment at higher secondary level.
- 3) To determine the status of academic achievement of students at higher secondary level.

METHODOLOGY

- Method of the study: This study was carried out with the aid of descriptive survey method.
- Selected sample and sampling technique: For this study, a sample of 480 students was selected randomly from 40 higher secondary schools of Jagadishpur Block, Bhagalpur District in Bihar state.
- Data collection tool: “School Environment Inventory (SEI)” developed by Dr. Karuna Shankar Mishra (2012) and for academic achievement; the total marks obtained by the students at the exam conducted by Bihar Intermediate Education Council, Patna were utilized.
- Statistical techniques: Parametric statistics like frequency and percentage were used to analyse the data.

DATA ANALYSIS AND INTERPRETATION

The analysis and interpretation of data were carried out in view of the objectives of this study. To determine dimension wise status of the school environment, obtained responses were categorized in the three levels i.e. high, average and low for each of the dimensions of School environment and presented in the following table:

Table– 01: Dimension wise status of the school environment

Dimensions of School environment	Status	Frequency (f)	Percentage (%)
Creative Stimulation	High	82	17
	Average	250	52
	Low	148	31
Cognitive Encouragement	High	110	23
	Average	274	57
	Low	96	20
Acceptance	High	168	35
	Average	259	54
	Low	53	11
Permissiveness	High	101	21
	Average	321	67
	Low	58	12
Rejection	High	350	73
	Average	77	16
	Low	53	11
Control	High	356	74
	Average	62	13
	Low	62	13

Interpretation: It is evident from the above table that the strong dimensions of school environment are Control and Rejection; whereas weak dimensions are Acceptance and Rejection respectively.

To explore the status of school environment at higher secondary level, the obtained overall scores on the SEI were categorized on the basis of computed quartiles and presented in the following table:

Table-02: Status of School environment

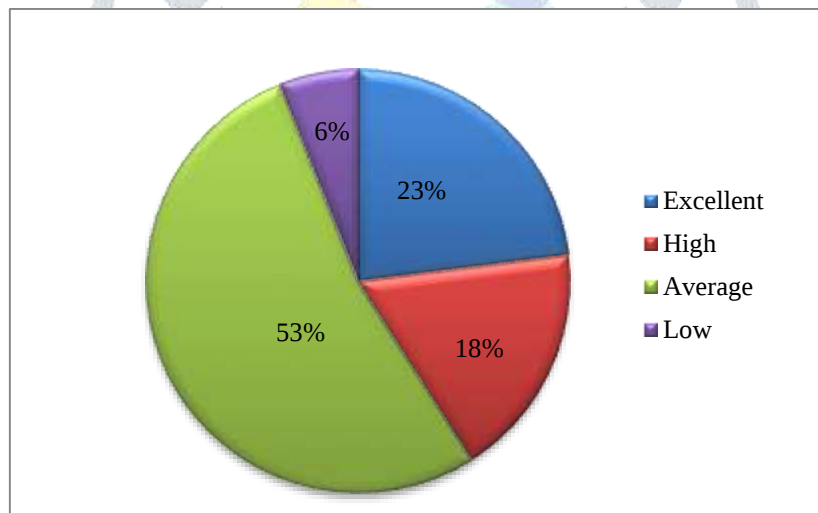
Status	Number of school (N)	Percentage (%)
Excellent	03	08
Good	05	12
Average	23	57
Bad	09	23
Total	40	100%

Interpretation: It is evident from the table-02 that 08% schools are with excellent environment, 12% schools are with good environment, 57% schools are with average environment and 23% schools are with bad environment. The percentage of schools with excellent environment status is relatively very low and those of average are the maximum.

To determine the status of academic achievement of students at higher secondary level, the marks obtained by the students in the BIEC examination were classified according to the computed quartiles and tabulated as follows:

Table– 03: Status of Academic achievement

Status	Number of students (N)	Percentage (%)
Excellent	110	23
High	086	18
Average	255	53
Low	029	06
Total	480	100 %

Graph- I: Pie chart for the status of the Academic achievement

Interpretation: It is evident from Table– 03 and Graph - I that the status of academic achievement for excellent, high, average and low are 23%, 18%, 53%, and 06% respectively. Majority of the students i.e. 59% are with average and low academic achievement.

FINDINGS OF THE STUDY

The cruxes of this study are as follows:

- There is a high response rate towards the dimensions of school environment such as Control and Rejection; whereas a moderate response rate towards Permissiveness, Cognitive Encouragement, Acceptance and Creative Stimulation respectively.

- The strong dimensions of school environment are Control and Rejection; whereas weak dimensions are Acceptance and Rejection respectively.
- The percentage of school environment with excellent status is comparatively lower than those of average status.
- Only 08% schools are with excellent environment, 12% schools are with good environment, 57% schools are with average environment and 23% schools are with bad environment.
- The percentage of excellent academic achievement status in comparison to those of average academic achievement status is relatively low. Majority of the students (59%) are with average and low academic achievement.

SUGGESTIONS:-

- Teachers should give more freedom to their students to express views and ideas regarding various activities.
- Guidance and counselling facilities should be made functional and effective for students in the schools.
- Use of Artificial intelligence should be encouraged in the schools to stimulate creative thinking and innovation among students.
- There should be provision of supervision for the unavailable supportive aids in the schools.
- Teachers should extend helping hand in the development of the students for avoiding the academic and non-academic failures.
- Curricular and co-curricular activities should be organized regularly in the schools.
- There should be provision of social service through NSS, NCC, Scout and Guide etc.
- There should be provision of faculty orientation and development in the schools.

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