

**RELATIONSHIP OF COGNITIVE ABILITIES, SELF- CONFIDENCE AND
ACADEMIC ATTAINMENT OF SCHOOL STUDENTS WITH SCHOOL
ENVIRONMENT**

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Abstract

The present study was designed to find out the relationship of cognitive abilities, self-confidence and academic attainment of school students with school environment. While employing descriptive survey method, the present study was conducted on a sample of 400 school students. The sample was selected by using random sampling techniques. Cognitive abilities test developed by Gupta and Lakhani, Self- Confidence scale by Gupta and Lakhani and School Environment Inventory by Mishra were used for data collection. Academic attainment of school students was assessed on the basis of percentage of marks obtained in previous class. Product moment correlation (r) was used to find out the relationship among variables under study. The findings of the study revealed the cognitive abilities of school students had significant relationship with five dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness and control). It was further revealed significant relationship of self-confidence of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness and control). It was also found that academic attainment of school students had significant relationship with out of six dimensions of school environment five dimensions (creative stimulation, cognitive encouragement, acceptance, permissiveness and control) had significant relationship with academic attainment among school students. Therefore, it is suggested that school environment should be such that it gives opportunity to learn by social experiences and thereby trained their mind in the supreme art of living.

Key words: *Cognitive Abilities, Self-Confidence, Academic Attainment, School Environment, School Students.*

Introduction

Education is an important instrument of human development. It gives desirable and definite

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shape to the individuals' way to conduct, temperament and character. It promotes human intelligence at greater speed and thereby enables them to be intellectual and broad minded. An intelligent individual is able to reason, plan, solve problem and, think abstractly, comprehend and complex ideas, learn and learn from experience. Education has helped in rapid advancement in science and technology and has increases the need for further innovation, challenges to inventions, psychological discoveries of nature of individual differences and emphasis of actualization. Achievement is end product of all the educational endeavors. It is a paramount important in present scenario, particularly in school environment. It is a matter of common experience that nature and nurture play a combine role in making an achieving individual.

The process of growth and development is responsible for the development of an individual's cognitive or intellectual abilities like memory, perception, sensation, understanding, intelligence, imagination, reasoning, generalization, interpretation, language abilities, conceptual abilities, problem solving abilities and decision making abilities etc. Cognitive development of an individual at any stage of development includes the overall development of these abilities. These abilities are unified and never develop in seclusion. There is greater possibility of the development of one ability than the other ability on different stage of life. Education also influences the level of cognitive abilities. Type of education received by an individual in congenial environment enhances the level of cognitive abilities among the students. It has been seen that highly educated individual have high level of cognitive abilities as compared to one with low level of education in general skills, problem-solving and abstract thinking. Environment of school have great bearing upon cognitive abilities of the children. Creative stimulation and cognitive encouragement in school influence the cognitive abilities of the students. Kaur (2014)^[12] revealed that cognitive factors (cognitive intelligence test, anxiety, achievement motivation, home environment, adjustment, study habits, intelligence test, anxiety and adjustment have significant correlation with academic performance in mathematics.

Self-confidence is the essence of a dynamic personality. High level of self-confidence enables an individual to reap the good harvest in future. The present society is a competitive society, where the principles of struggle for existence and fitness exist. Self-confidence is a process from which an individual gets proper input to feed his hunger and to quench the trust to grow.

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Many studies have been conducted on self-confidence with different variables. Self-confidence has paramount importance in order to achieve the goals. Jain (1990)^[11] concluded that girls with high self-confidence have high academic goals. Self-confidence is not limited to how we present ourselves in front of others but it encompasses how we view ourselves and perceive our world, the way we treat others, and even how we deal with adverse situations.

Academic attainment has always been one of the most complex and divisive issue in education. It is the knowledge attained or skills developed in school subjects, usually determined by test scores or by marks assigned by teachers or both. It plays a very significant role in harmonious development of the child. Sound development in academic side serve as pillars on which entire future structure of personality stands. Therefore, academic attainment should be considered to be in comprehensive construct that consists diverse areas of learning. The teaching methods, strategies which a teacher plans to execute in classroom have significant impact on academic attainment of the learner. The implementation of educational strategies according to the level of students, their interest, content to be taught, time limit and learning style of the students are significantly associated with academic attainment of the students. Avinashilingam and Sharma (2005)^[2] observed that classroom aspects play an important role in academic attainment of a student. Sharma (2009)^[19] concluded that creative stimulation, cognitive encouragement, permissiveness dimensions of school environment effect the creativity of school children to a certain extent. Kaushal (2016)^[13] revealed that there was significant difference in academic achievement through modular teaching and traditional teaching. Khan and Unnisa (2017)^[14] investigated that school environment has positive relationship with academic achievement but the relationship is very low.

The school is the main source of the child's social environment allowing emotions and actions in conformity with its tradition and customs. School environment is the most powerful social medium for the development of the character and the whole personality of the students. It refers to the social, emotional and academic prospect of a school which is professed by the students, staff and community. It is affected by different factors from disciplinary policies to instructional appeal to the students. A positive school environment produces an optimum setting for teaching and learning. It is more than physical structure, time table or even the textbooks. Devi and Mayuri (2003)^[7] found that school factors i.e. teachers qualification, physical setup, curriculum and subject matter, classroom organization, methods of teaching,

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teacher student interaction have significant impact on academic achievement of residential school children studying in IX and X classes. Azam (2009) ^[3] concluded that school environment had significant main effect as well as interaction effect on resilience among adolescents. Bency and Prasad (2013)^[4] revealed significant positive relationship between school environment and academic achievement of school students. Choudhary (2015) ^[5] found that moral judgment and school environment are positively correlated with each other. No correlation was found between social maturity and school environment of adolescent students. Kishore (2016) ^[15] revealed that school environment, was significantly related to academic achievement of high school students in all subjects. Infact, good and healthy school environment can provide strength and skills to the students which open the ways to their development.

Objectives of the Study

The study has the following objectives:

- To find out the relationship of the cognitive abilities of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection; and control).
- To find out the relationship of self-confidence of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection; and control).
- To find out the relationship of academic attainment among school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection; and control).

Hypotheses of the Study

The study has the following hypotheses:

- There exists no significant relationship of cognitive abilities of school students with six dimensions of school environment (i) creative stimulation (ii) cognitive encouragement (iii) acceptance (iv)permissiveness (v) rejection; and (vi) control.

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- There exists no significant relationship of self-confidence of school students with six dimensions of school environment (i) creative stimulation (ii) cognitive encouragement (iii) acceptance (iv) permissiveness (v) rejection; and (vi) control.
- There exists no significant relationship of academic attainment of school students with dimensions of school environment (i) creative stimulation (ii) cognitive encouragement (iii) acceptance (iv) permissiveness (v) rejection; and (vi) control.

Design of the Study

In the present study, descriptive survey method was used.

Sample

For the present study, 400 students studying in secondary schools of Faridabad district affiliated to CBSE board were randomly selected for data collection. .

Tools Used

- **Cognitive Ability Test** developed by the Gupta and Lakhani (2018)^[9] was used to assess the level of cognitive abilities among secondary and senior secondary school students. The test has 40 items under five dimensions (memory, awareness, understanding, reasoning ability and problem solving ability). The reliability of the test was 0.701. Inter-correlations among different dimensions of the test has indicate high construct validity of the scale which ranging from 0.604 to 0.899.
- **Self-Confidence Scale** developed by the Gupta and Lakhani (2018)^[10] was used to assess the level of self-confidence among secondary and senior secondary school students. The scale has 48 items under five dimensions (decisiveness, self-concept, self-control, inter-personal relations and parental support). The reliability of the scale was 0.840. Inter-correlations among different dimensions of the scale have indicated high construct validity of the scale which ranging from 0.264 to 0.439.
- **Academic Attainment** of school students was assessed through the percentage of marks in previous class.
- **School Environment Inventory (SEI)** developed by Mishra (2002)^[17] was used to collect the data. The inventory has 70 items belonging to six dimensions of the school environment viz. creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection and control. The split-half reliability (corrected for length) for

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various dimensions of the school environment was calculated which range from 0.673 to 0.919. Inter correlations among the different dimensions of school environment have calculated which ranged between 0.01 to 0.89.

Statistical Techniques Used

Product Moment Correlation (r) was used in the present study.

Analysis and Interpretation

The objective of the study was to find out the relationship of cognitive abilities, self-confidence and academic attainment of school students with six dimensions of school environment.

Relationship of Cognitive Abilities of School Students with Dimensions of School Environment

This relationship of cognitive abilities of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection and control) has been studied. Table 1 and fig 1 presents the correlations of cognitive abilities with dimensions of school environment.

Table-1
Correlations of Cognitive Abilities of School Students with Dimensions of School Environment

Dimensions of School Environment		r-values
1	Creative Stimulation	0.231**
2	Cognitive Encouragement	0.287**
3	Acceptance	0.096(NS)
4	Permissiveness	0.129**
5	Rejection	0.111*
6	Control	0.040(NS)

**** Significant at 0.01 level NS- Not Significant**

It is clear from the table 1 that the correlation of cognitive abilities of school students with school environment with creative stimulation, cognitive encouragement, permissiveness is significant at 0.01 level. Therefore the null hypothesis $H_{01(i)}$, $H_{01(ii)}$ and $H_{01(iv)}$ are rejected. It can be further observed from the table that correlation of cognitive abilities of school students with school environment with acceptance, rejection and control are not significant. Thus the null hypotheses $H_{01(iii)}$ and $H_{01(vi)}$ are accepted. The table also depicts that coefficients of correlation of cognitive abilities of school students with school environment with rejection is negative therefore the null hypothesis $H_{01(v)}$ is also accepted. Therefore it can be concluded that

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the cognitive abilities of school students are related with cognitive stimulation, cognitive encouragement.

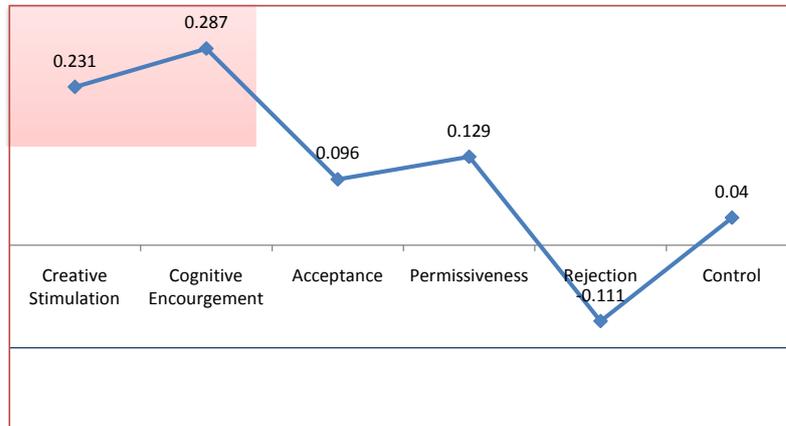


Fig: 1 Correlations of Cognitive Abilities of School Students with Dimensions of School Environment

Relationship of Self-Confidence of School Students with Dimensions of School Environment

The relationship of self-confidence of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection and control). Table 1 and fig-1 presents the correlation of self confidence of school students with six dimensions of school environment.

**Table- 2
 Correlations of Self-Confidence of School Students with Dimensions of School Environment**

Dimensions of School Environment		r-values
1	Creative Stimulation	0.327**
2	Cognitive Encouragement	0.496**
3	Acceptance	0.355**
4	Permissiveness	0.315**
5	Rejection	-0.192(NS)
6	Control	0.255**

**** Significant at 0.01 level**

NS- Not Significant

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It can be observed from the table 2 that the self-confidence of school students with school environment with creative stimulation, cognitive encouragement, acceptance, permissiveness and control are significant at 0.01 level. Therefore the null hypothesis $H_{02(i)}$, $H_{02(ii)}$, $H_{02(iii)}$, $H_{02(iv)}$ and $H_{02(vi)}$ are rejected. It can be due to the reason that the if students are provided with creative stimulation, cognitive encouragement with acceptance and free environment in controlled conditions in school, it raises their level of self-confidence in school students. Agnihotri (2014) ^[1] also found significant relationship between the perceptions of socio-emotional school climate with self-confidence of adolescents, It can be further observed from the table that the correlation of self-confidence of school students with school environment with rejection is negative, therefore the null hypothesis $H_{02(v)}$ is accepted.

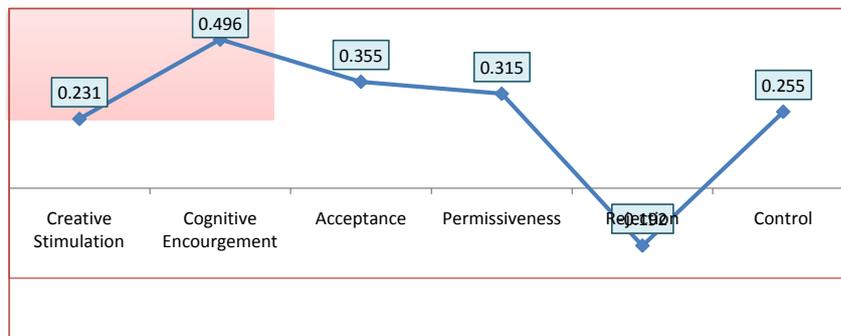


Fig. 2: Correlations of Self-Confidence of School Students with Dimensions of School Environment

Relationship of Dimensions of School Environment with Academic Attainment of School Students

This section deals with the relationship of academic attainment of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness, rejection and control). Table 3 presents the correlations of academic attainment with six dimensions of school environment.

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Table-3
Correlations of Academic Attainment of School Students with Dimensions of School Environment

	Dimensions of School Environment	r-values
1	Creative Stimulation	0.537**
2	Cognitive Encouragement	0.440**
3	Acceptance	0.244**
4	Permissiveness	0.287**
5	Rejection	-0.205(NS)
6	Control	0.290**

**** Significant at 0.01 level**

NS- Not Significant

Table 3 depicts that the correlation of academic attainment of school students with school environment with creative stimulation, cognitive encouragement, acceptance, permissiveness and control are significant at 0.01 level. Therefore the null hypothesis $H_{03(i)}$, $H_{03(ii)}$, $H_{03(iii)}$, $H_{03(iv)}$ and $H_{03(vi)}$ are rejected. It can be further observed from the table that correlation of academic attainment of school students with school environment with rejection is negative, therefore the null hypothesis $H_{02(v)}$ is accepted. It may be due to the reason that academic attainment of school students is affected by creative stimulation, cognitive encouragement, acceptance, permissiveness and control in school environment and rejection in school environment has negative effect on academic attainment of school students. Dwivedi (2005)^[6] found that who had better school environment, scored significantly higher academic achievement than poor school environment; the students who were high approval seeker had significantly high achievement than the students who were low approval seeker. Gupta and Kapoor (2012)^[8] found that school environment with creative stimulation; cognitive encouragement and acceptance were significantly positively correlated with their scholastic achievement in English. Lawrence and Urmila (2012)^[16] showed that there was no significant relationship between the school environment and academic achievement of IX class students. Paramasivam (2014)^[18] found that there was positive correlation between achievement in chemistry and overall school environment of higher secondary students. Kishore (2016)^[15] revealed that school environment, was significantly related to academic achievement of high school students in all subjects.

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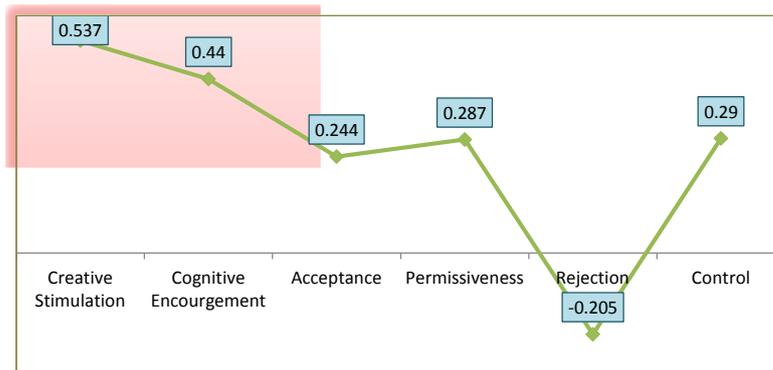


Fig: 3 Correlations of Academic Attainment of School Students with Dimensions of School Environment

Conclusions

In the present study, it was found that the cognitive abilities of school students had significant relationship with five dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness and control). It was further revealed significant relationship of self-confidence of school students with six dimensions of school environment (creative stimulation, cognitive encouragement, acceptance, permissiveness and control). It was also found that academic attainment of school students had significant relationship with out of six dimensions of school environment five dimensions (creative stimulation, cognitive encouragement, acceptance, permissiveness and control) had significant relationship with academic attainment among school students. Hence, it is suggested that by understanding the level of the students, teachers should spell out the definable setoff expected behaviour which can inspire the students to perform better. The teacher should accept the feeling of the individual in non threatening manner. The students who perceive support in classroom have high cognitive abilities, high level of self-confidence and good academic performance.

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