

Analysis of the Impact of School Infrastructure and Teacher's Background on the Personality of Secondary Students

Amit Bhardwaj, Arvind Kumar Sharma

^{1,2}Dept. of Education, Shri Venkateshwara University, Amroha, U.P., India

Correspondance: Arvind Kumar Sharma (Assistant Professor)

Abstract

The relationship between the personality of secondary students with the school infrastructure and teachers background was investigated. Samples were obtained with three hundred (300) students randomly selected from three 15 secondary schools. The two factors examined and statistically analyzed were school infrastructure including teacher's background and student's personality. Diverse statistical tests were performed on the various data collected to establish statistical significance of the effects on student's personality. Teacher's background did not have significance effect on the personality of the students; however, school infrastructure had direct impact on student's performance and personality.

Introduction

In 400 BC, Hippocrates, a physician and a very acute observer, claimed that different personality types are caused by the balance of bodily fluids. Phlegmatic (or calm) people were thought to have a higher concentration of phlegm; sanguine (or optimistic) people had more blood; melancholic (or depressed) people had high levels of black bile; and irritable people had high levels of yellow bile.

Sigmund Freud (1856–1939) has described psychoanalysis as 'a theory of the mind or personality, a method of investigation of unconscious process, and a method of treatment' (Tansley, 1941).

Psychologists and sociologists of education have always been interested in researching academic achievements, and a great amount of studies were conducted in this regard (Busato, Prins, Elshout, and Hamaker, 2000; Crosnoe, 2004; Goh & Moore, 1987; Merenluoto, 2009; Savage, 1962; Schlee, Willingham, 1974). From a psychological point of view, personality is an important factor because it provides a framework for the description of an individual, and also specific differences between individuals. These variances are important because they can be studied with the aim to be used in the learning, improvement and practice process in order to achieve academic success (Duff, Boyle, Dunleavy, & Ferguson, 2004; Laidra, Pullmann, & Allik, 2006). When it comes to personality, this divergence in findings is more tangible. Therefore, the predictive power of personality traits in the academic success has yet to be replicated, across different contexts, among different participants, and via different instruments. In the present study, we have examined the relationship between personality and the school infrastructure including teacher's background among 300 students, both girls and boys from 15 rural government and private schools of district Saharanur, Uttar Pradesh, India.

Method of Study

The present work attempts to study and compare the vocational interest and personal values of students of Science, Arts and Commerce academic streams at Secondary level. Thus the nature of study is such that it requires descriptive analysis of vocational interests and values. For this study the survey research method was used, with the following factors;

Population and sample of the study: The population for the purpose of this study was a mixed population constituted of 100 students (50 girls and 50 boys) of each stream of science, art and commerce, i.e. total 300 students, at secondary level from

15 rural government and private schools of district Saharanpur, under U.P. Board, India.

First of all a list indicating the number of +2 level schools situated in proper Saharanpur District was prepared. It was primarily decided to take at least 300 students for final analysis of the study. Accordingly, it was decided to take large number of institutions so that the target of 300 students could be achieved.

To meet this requirement, out of 28 Intermediate colleges in Saharanpur, 15 colleges randomly selected. Since all these colleges do not have all the three academic streams at secondary level, so for each academic stream, 10 colleges were finally selected for drawing the sample. Afterwards three groups consisting of Science, Arts and Commerce students were formed. The total numbers of students under each academic stream (Science, Arts and Commerce) were 100, thus making a total of 300 students in all.

Table 1: STRUCTURE OF THE SAMPLE

Academic Streams	Number of Students
Science	100
Arts	100
Commerce	100
Total	300

Tools used for the collection of data: The Following tools were used for the present study;

- I. For Measuring Personality- Dimensional Personality Inventory (DPI) developed by Dr. Mehesh Bhargava.
- II. For measuring Teachers background and school infrastructure- The teacher's background was measured on the Scale developed by Prof. R.A. Singh and Prof. S.K. Saxena. School infrastructure was measured as the availability of five major assets i.e. Multimedia Projectors in class room, Computer Labs, Science Labs, Specialized Language Teaching Labs and Advance library standards.

Variables of the study: The following variables were used;

- i. Independent Variables: DPI of students and School's Infrastructure.
- ii. Moderate Variable: Gender

The DPI traits included Activity-Passivity, Enthusiastic–Non enthusiastic, Assertive-Submissive, Suspicious – Trusting, Depressive– Non depressive, Emotional –Emotional, Instability-Stability, and Confidant – Submissive.

Statistical analysis: The Pearson's product moment method of correlation was used.

Results

The data obtained in the study was analyzed using the proposed statistical methods and the results of the interpretations are as below;

Data analysis and interpretation:

1. Hypothesis: There is no positive correlation difference between Dimensional Personality Inventory and school infrastructure or teacher's background of 10th standard science students in total.

Table-1-A: Correlation difference between DPI and S.I. of 10th standard Science Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	79.23	18.21	0.187	0.237	Significant Correlation
S.I.	Students	100	68.52	4.63			

DPI = Dimensional Personality Inventory, S.I. = School Infrastructure

Obtained r-value > table r-value

The obtained r-value was found greater than the table r-value, so personality and school infrastructure were observed to be significantly correlated at the 0.05 level of significance. Hence the framed null hypothesis was rejected. It is therefore proposed that there is a positive correlation between DPI and SI of 10th standard science students.

Table-1-B: Correlation difference between DPI and T.B. of 10th standard Science Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	62.52	06.24	0.259	0.082	Insignificant Correlation
T.B.	Students	100	73.31	17.59			

Obtained r-value < table r-value

The obtained r-value was less than the table r-value, so DPI and TB were insignificantly correlated at the 0.05 level of significance, hence, the framed null hypothesis was accepted in favour of alternative hypothesis. There was no positive correlation between dimensional personality inventory and teacher's background of 10th standard science students.

2. Hypothesis: There is no positive correlation difference between Dimensional Personality Inventory and school infrastructure or teacher's background of 10th standard Art Students in total.

Table-2-A: Correlation difference between DPI and T.B. of 10th standard Art Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	76.23	19.63	0.083	0.168	Significant Correlation
S.I.	Students	100	61.42	4.82			

Obtained r-value > table r-value

The obtained r-value was found greater than the table r-value, so personality and school infrastructure were observed to be significantly correlated at the 0.05 level of significance, hence the framed null hypothesis was rejected. It is therefore proposed that there is a positive correlation between DPI and SI of 10th standard art students.

Table-2-B: Correlation difference between DPI and T.B. of 10th standard Science Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	49.05	12.21	0.583	0.275	Insignificant Correlation
T.B.	Students	100	68.16	17.37			

Obtained r-value < table r-value

The obtained r-value was less than the table r-value, so DPI and TB were insignificantly correlated at the 0.05 level of significance, hence, the framed null hypothesis was accepted in favour of alternative hypothesis. There was no positive correlation between dimensional personality inventory and teacher's background of 10th standard art students.

3. Hypothesis: There is no positive correlation difference between Dimensional Personality Inventory and school infrastructure or teacher's background of 10th standard commerce students in total.

Table-3-A: Correlation difference between DPI and S.I. of 10th standard Commerce Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	75.23	17.05	0.072	0.275	Significant Correlation
S.I.	Students	100	42.31	15.3			

Obtained r-value > table r-value

The obtained r-value was found greater than the table r-value, so personality and school infrastructure were observed to be significantly correlated at the 0.05 level of significance. Hence the framed null hypothesis was rejected. It is therefore proposed that there is a positive correlation between DPI and SI of 10th standard commerce students.

Table 3-A: Correlation difference between DPI and TB of 10th standard Commerce Students.

Variable	Sample	N	Mean	S.D	Table r-Value	Obtained r-Value	Correlation
D.P.I.	Students	100	63.35	12.13	0.473	0.361	Insignificant Correlation
T.B.	Students	100	71.82	19.27			

Obtained r-value < table r-value

The obtained r-value was less than the table r-value, so DPI and TB were insignificantly correlated at the 0.05 level of significance, hence, the framed null hypothesis was accepted in favour of alternative hypothesis. There was no positive correlation between Dimensional Personality Inventory and teacher's background of 10th standard commerce students.

Discussion and Conclusion

On the basis of the statistical analysis and the interpretation of

the data it was observed that apparently the school infrastructure directly influences the personality of students in terms of their confidence, emotional stability, decision making capacity, body language and expression of their views etc irrespective of girls or boys and irrespective of government or private schools. The teachers background whether they belong to rural or urban background did not find to have any direct influence on the personality of students. This trend was observe among all the students irrespective of their specialization of the subjects i.e. science, art or commerce. So, it is concluded that school infrastructure and exposure of students to the advanced teaching and learning methodology improves their understanding of the subject, social aspects and general awareness and the play a direct role on the overall the development of the overall personality of the students. The results obtained from the study confirm the early studies conducted by Johan (1985), Gupta (1990), Harward et al., (1999).

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