

PERSONALITY AND ADJUSTMENT IN RELATION TO ACHIEVEMENT OF SCIENCE STUDENTS

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ABSTRACT

Education is a tool which brings behavioural changes in the child and makes him fit to adjust in the environment and achieve higher. Since the world today is competitive, so, number of factors determines the adjustment of children in the classroom and thus their achievement in academics. Science is a technical subject and needs a different bent of mind, so, not all students opt for science subjects and achieve higher in these subjects. Thus, investigator was interested to study the achievement of science students in relation to their personality and adjustment. For this, a random sample of 100 science students, consisting of 50 boys and 50 girls, of 10+1 class was taken from two senior secondary schools of Chandigarh. The objective was to study the correlation among personality, adjustment and achievement of the sample students. Pearson correlation and t-test were computed to test the hypotheses. The results of the study showed no significant correlation between Personality and Achievement and Adjustment and Achievement of Science Students of 10+1 class. Male introvert science students scored better than female introvert science students. Male science students were found to adjust better than female science students.

INTRODUCTION

Education moulds the personality of the child. It brings behavioural changes in him and prepares him to adjust in different environment he encounters. These behavioural changes are reflected in the work culture of the child and hence in the achievement. The children who are out going and are prompt to take initiatives adjust better in varying environment and show high levels of achievement in academics. Well-adjusted students usually value what they are learning, are positively involved in classroom activities and receive high grades. (Kiuru, et al. 2009). Poor school adjustment leads to low academic achievement, behavioural problems, discordant educational aspirations and even school dropout. (Vasalampi et al. 2009; Raju & Rahamtula 2007). Dixit (1989), Jhonson (1997) in their study showed that personality factors also significantly influence the educational achievement of children.

Personality

Personality is referred to as the qualities within a person, characteristics of a person's behaviour or both. It also refers to individual differences in characteristic patterns of thinking, feeling and behaving.

Allport (1937) defined personality as the dynamic organisation within the individual of those psychophysical systems that determines his unique adjustment to his environment. Mischel



(1976) defined personality as the distinctive patterns of behaviour (including thoughts and emotions) that characterizes each individual's adaptation to the situation of his or her life.

Adjustment

Adjustment is a process of altering the behaviour of oneself so as to be in a harmonious relationship with the environment.

Srivastava (1996) defined adjustment as 'the harmonious relationship with the environment in which most of the individual needs are satisfied in socially acceptable ways and resulting in forms of behaviour which may range from passive conformity to vigorous action'.

RATIONALE OF THE STUDY

Educational scenario is becoming very competitive these days. Children are competing among each other to achieve higher in academics and other fields. Despite lot of labour they put in, some get the desired achievement, some remain average and others fail to meet the expectations. Achievement has no simple direct correlation with the labour the child put in to achieve. It is the combination of many other factors, such as, interest, motivation, school, home and class environment, personality, adjustment, emotional intelligence, anxiety and so on. Some may be directly correlated with the achievement and other factors may have inverse correlation with achievement. In this study, investigator studied the achievement of science students. Since science is a technical subject and demands lot of labour and logical reasoning, so, all the children may not show higher achievement in science subjects. Even they fail to adjust in the classroom and bear the pressure of studies. Hence investigator tried to study the achievement of science students in relation to their personality and adjustment.

OBJECTIVES

1. To study the correlation of personality and achievement of science students of 10+1class.
2. To study the correlation of adjustment and achievement of science students of 10+1class.
3. To study the significant difference between the mean scores of achievement of introvert and extrovert science students of 10+1class.
4. To study the significant difference between mean scores of achievement of introvert male and female science students of 10+1class.
5. To study the significant difference between mean scores of achievement of extrovert male and female science students of 10+1class.
6. To study the significant difference between the mean scores of adjustment of male and female science students of 10+1class.

HYPOTHESES

1. There exists no significant correlation of personality and achievement of science students of 10+1class.
2. There exists no significant correlation of adjustment and achievement of science students of 10+1class.
3. There exists no significant difference between the mean scores of achievement of introvert and extrovert science students of 10+1class.



4. There exists no significant difference between mean scores of achievement of introvert male and female science students of 10+1class.
5. There exists no significant difference between mean scores of achievement of extrovert male and female science students of 10+1class.
6. There exists no significant difference between the mean scores of adjustment of male and female science students of 10+1class.

SAMPLE

The population of the study were all the 10+1class students studying in senior secondary schools of Chandigarh. A sample of 100 science students of 10+1class was taken from two senior secondary schools of Chandigarh. Out of the 100 students 50 were girls and 50 were boys. The schools were selected randomly.

TOOLS USED

1. Eysenck Personality Inventory by Eysenck and Sybil (1975) to study the personality components of the sample students.
2. Adjustment Inventory for School Students (AISS) by Sinha and Sinha (1998).

DESIGN OF THE STUDY

Survey method of research was used to study the present problem.

STATISTICAL TECHNIQUE

The data were analysed using descriptive and inferential statistics. Mean, median, standard deviation, Pearson correlation and t-test were computed to test the hypotheses.

ANALYSIS AND INTERPRETATION

The hypotheses were tested using statistical techniques.

1. The first objective of the study was to study the correlation of personality and achievement of science students of 10+1class.

Table 1: Coefficient of Correlation Value between Personality and Achievement of Science Students of 10+1class

Variable	N	Coefficient of Correlation	Level of significance
Extrovert- Personality	17	-0.086	NS
Achievement	17		
Introvert- Personality	29	0.035	NS
Achievement	29		

Table 1 shows the correlation between Personality and Achievement of Science Students of 10+1class.. The coefficient of correlation values has been found to be - 0.086 for extroverts and 0.035 for introverts, which are not significant. Hence the hypotheses, 'There exists no significant correlation between Personality and Achievement of Science Students of 10+1class' may be accepted.



2. The second objective of the study was to study the correlation of adjustment and achievement science students of 10+1class.

Table 2: Coefficient of Correlation Value between Adjustment and Achievement Science Students of 10+1class

Variable	N	df	Coefficient of Correlation	Level of significance
Adjustment	100	98	-0.079	NS
Achievement	100			

Table 2 shows the correlation between Adjustment and Achievement of Science Students of 10+1class. The coefficient of correlation value has been found to be -.079, which is not significant. Hence the hypotheses, 'There exists no significant correlation between Adjustment and Achievement of Science Students of 10+1class,' may be accepted.

3. The third objective of the study was to study the significant difference between the mean scores of achievement of introvert and extrovert science students of 10+1class.

Table 3: t-ratio Value of Mean Scores of Achievement of Introvert and Extrovert Science Students of 10+1class

Variable	Gender	N	Mean	SD	df	t-ratio	Level of Significance
Achievement	Extrovert	17	87.12	11.42	44	0.202	NS
	Introvert	29	12.23	12.23			

Table 3 shows that the t-ratio value of mean scores of achievement of introvert and extrovert science students of 10+1class is 0.202 at 44 degree of freedom. The value is not significant. The difference between the mean values of academic achievement between extrovert and introvert students may be due to the sampling error. Hence the hypothesis, 'There exists no significant difference between the mean scores of achievement of introvert and extrovert science students of 10+1class,' may be accepted.

4. The fourth objective of the study was to study the significant difference between mean scores of achievement of introvert male and female science students of 10+1class.

Table 4: t-ratio Value of Mean Scores of Achievement of Introvert Male and Female Science Students of 10+1class

Variable	Gender	N	Mean	SD	df	t-ratio	Level of Significance
Achievement (Introvert)	Male	16	91.13	5.1	27	2.53	.01
	Female	13	80.54	15.8			



Table 4 shows that the t-ratio value of mean scores of achievement of introvert male and female science students of 10+1class is -2.53, which is significant at .01 level. The difference between the mean values of male and female students is not due to the sampling error. Hence the hypothesis, 'There exists no significant difference between mean scores of achievement of introvert male and female science students of 10+1class,' stands rejected. Mean scores of achievement of introvert male students has been found to be 91.13, which is higher than that of mean scores of achievement of introvert female science students (80.54). Thus male introvert science students score better than female introvert science students.

- The fifth objective of the study was to study the significant difference between the Adjustment of male and female students of class IX.

Table 5: t-ratio Value of Mean Scores of Achievement of Extrovert Male and Female Science Students of 10+1class

Variable	Gender	N	Mean	SD	df	t-ratio	Level of Significance
Achievement (Extrovert)	Male	6	80.50	16.3	15	-1.90	NS
	Female	11	90.73	5.9			

Table 5 shows that the t-ratio value of mean scores of achievement of extrovert male and female science students of 10+1class is -1.90, which is not significant. The difference between the mean values of male and female students may be due to the sampling error. Hence the hypothesis, 'There exists no significant difference between mean scores of achievement of extrovert male and female science students of 10+1class,' may be accepted.

- The sixth objective of the study was to study the significant difference between the mean scores of adjustment of male and female science students of 10+1class

Table 6: t-ratio Value of Mean Scores of Adjustment of Male and Female Science Students of 10+1class

Variable	Gender	N	Mean	SD	df	t-ratio	Level of Significance
Adjustment	Male	50	21.8	7.5	98	-2.02	0.05
	Female	50	19.0	6.1			

Table 6 shows that the t-ratio value of mean scores of adjustment of male and female science students of 10+1class is -2.02, which is significant at .05 level. The difference between the mean values of male and female students is not due to the sampling error. Hence the hypothesis, 'There exists no significant difference between mean scores of adjustment of male and female science students of 10+1class,' stands rejected. The mean value of adjustment of male students has been found to be 21.8 which is higher



than that of mean value of adjustment of female students, that is, 19.0. Thus, male science students are found to adjust better than female science students.

RESULTS AND CONCLUSION

1. There exists no significant correlation between Personality and Achievement of Science Students of 10+1class.
2. 'There exists no significant correlation between Adjustment and Achievement Science Students of 10+1class.
3. There exists no significant difference between the mean scores of achievement of introvert and extrovert science students of 10+1class.
4. Male introvert science students score better than female introvert science students.
5. There exists no significant difference between mean scores of achievement of extrovert male and female science students of 10+1class.
6. Male science students are found to adjust better than female science students.

REFERENCES

- Allport(1937).Personality- Definition.In the book Introduction to Psychology by Clifford T. Morgan, R. A. King, J. R. Weisz& J. Schopler. Tata McGraw-Hill EducationPvt. Ltd., New Delhi, 2010,p.568.
- Dixit, S.K. (1989). The effect of personality factors and self concept on educational achievement. Fifth Survey of Research in Education (2) Published by NCERT, New Delhi.
- Johnson, C.B. (1997). Personality Traits and Learning Styles: Factors affecting the academic achievement of underachieving gifted students. DAI (1998).
- Kiuru, N.,Nurmi J., Aunola K., Salmela – Aro, K. (2009). Peer group homogeneity in adolescents' school adjustment varies according to peer group type and gender. International Journal of Behavioral Development 33 (1) 65-76.
- Mischel (1976).Personality- Definition.In the book Introduction to Psychology by Clifford T. Morgan, R. A. King, J. R. Weisz& J. Schopler. Tata McGraw-Hill EducationPvt. Ltd., New Delhi, 2010,p.568.
- Raju, M. V. &Rahamtulla, T. K. (2007).Adjustment Problems among School Students Journal of the Indian Academy of Applied Psychology.33 1 73- 79.
- Srivastava, S.K. (1996). Adjustment, Personality and Self Perceptionamong Engineering and Medical Students. Journal of Education Research and Extension, 33(2).
- Vasalampi, K. Salmela-Aro K., Nurmi, J. (2009). Adolescentsself-concordance, school engagement, and burnout predict their educational trajectories.European psychologist vol 14 (4)

