

RELATIONSHIP BETWEEN PERSONALITY AND TEACHER EFFECTIVENESS OF MATHEMATICS TEACHERS

Research
Paper

ABSTRACT

In this study, the investigators attempted to find out the relationship between personality and teacher effectiveness of Mathematics teachers. Personality Inventory and Teacher Effectiveness Scale constructed and validated by the investigators were used to collect data from Mathematics teachers. Rating by the investigator was also used to measure teacher effectiveness. The sample consisted of 200 Mathematics teachers working in various schools of Kanyakumari District. The study revealed that there is a positive and significant relationship between personality and teacher effectiveness of Mathematics teachers. Sex, locality and type of management of the school show significant difference in the personality of Mathematics teachers. Regarding teacher effectiveness, no significant difference was noted between male and female, rural and urban and government and private school teachers.

INTRODUCTION

It is universally accepted that the teacher is the most important component of Education (Sikora 1997). Educational reforms depend on the effectiveness of teachers. The teacher of today has to be quite different from his predecessors. He is not a mere instructor or task master. He should make the teaching learning process a joyful activity by being a creator of new knowledge. These expanded roles of a teacher necessitate effective teaching skills and very good personality traits.

REVIEW OF RELATED LITERATURE

There are conflicting theories about the role of personality of teachers in deciding their teaching success. A substantial volume of reported research support that personality has a dominant influence on their teaching behaviour. Personality variables related to different indices of teaching proficiency as identified by modern researchers are personal adjustment (Chayya 1974), self confidence (Gupta 1976), femininity (Sharma 1978), teacher warmth (Ausubal 1978), anxiety (Despande and Thirth 1980), and emotional maturity (Singh 1981). The general trend of research is in favour of accepting the conclusion that personality factors are crucial in determining teaching success. The present investigation has been designed with this assumption as a basic postulate.

NEED AND SIGNIFICANCE OF STUDY

The teacher occupies a pivotal position in any

progressive society. Whether viewed as a model, a director, a supervisor, a guide or a leader, the task of a teacher is crucial in moulding the youth. The changing role from that of a dispenser of knowledge to that of innovator, stimulator, motivator, helper and agent of social change presumes that teachers possessing certain personality traits alone can perform any of these roles effectively. The teacher is undoubtedly the most important factor enhancing the student's achievement.

A comparison of achievement in various subjects results that students get low scores in Mathematics. The more effective a teacher is, the greater will be the improvement in students' achievement. How the personality of the teacher interacts with his teaching ability is a critical factor in teacher effectiveness. The study is an attempt to find out the relationship between personality and teacher effectiveness.

OBJECTIVES OF THE STUDY

1. To find out the level of personality traits and teacher effectiveness of Mathematics teachers.

Dr.S.Sreelatha

Assistant Professor in Early Childhood Education

Dr.S.Krishna Prasad

Principal

N.V.K.S.D College of Education, Attoor, K.K.Dist

2. To find out whether there is any significant difference in the personality of Mathematics teachers based on the background variables.
3. To find out the significant difference if any in teacher effectiveness of Mathematics teachers based on the background variables.
4. To find out whether there is any significant relationship between personality and teacher effectiveness of Mathematics teachers.

MAJOR HYPOTHESES FORMULATED

1. There is no significant difference between Mathematics teachers categorized on the basis of sex, locality and type of management on the variable personality.
2. There is no significant difference between Mathematics teachers categorized on the basis of sex, locality and type of management on the variable teacher effectiveness.
3. The variable teacher effectiveness will not correlate positively and significantly with the personality variable under study.

METHODOLOGY

Method adopted

The investigators adopted the normative survey method to study the relationship between personality and teacher effectiveness of Mathematics teachers.

Population

The population for this investigation constituted all the Mathematics teachers working in the high schools of Kanyakumari district.

Sample

The sample consisted of 200 Mathematics teachers working in the high schools of Kanyakumari district.

Tools Used

Personality Inventory and Teacher Effectiveness Scale constructed and validated by the investigators were used to collect the data. The Other Rating Technique (Observation by the investigator) was used to measure teacher effectiveness.

Statistical Techniques Used

Arithmetic means, t test, and Pearson product moment method of correlation were used for the analysis of data and to assess the level of personality and teacher effectiveness of Mathematics teachers.

RESULTS AND DISCUSSION

1. Assessment of the level of personality and teacher effectiveness of Mathematics teachers.

Table 1
LEVEL OF PERSONALITY TRAITS OF MATHEMATICS TEACHERS

Variables	Low		Moderate		High	
	Count	%	Count	%	Count	%
Emotional Adjustment	31	15.5	129	64.5	40	20
Endurance	36	18	136	68	28	14
Gregariousness	21	10.5	139	69.5	40	20
Objectivity	19	9.5	143	71.5	38	19

It is inferred from the table that 64.5% of Mathematics teachers possess moderate level of emotional adjustment, 68% possess moderate level of Endurance, 69.5% possess moderate level of Gregariousness and 71.5% possess moderate level of objectivity. The majority of the Mathematics teachers possess moderate level of Emotional adjustment, Endurance, Gregariousness and Objectivity.

Table 2
LEVEL OF TEACHER EFFECTIVENESS OF MATHEMATICS TEACHERS

Teacher Effectiveness	Count	Percentage
Low	35	17.5
Average	143	71.5
High	22	11
Total	200	100

From the table it is clear that 71.5% of Mathematics teachers possess average level of teacher effectiveness. Hence the majority of mathematics teachers are having moderate level of teacher effectiveness.

2. Analysis of the scores using t-test

Table 3
SEX WISE COMPARISON OF THE SCORES OF PERSONALITY VARIABLES

Sl. No	Variables	Category	Mean	S.D	t-value	Level of Significance
1	Emotional Adjustment	Male	39.99	8.21	6.32	0.01
		Female	33.47	9.58		
2	Endurance	Male	34.96	4.92	4.41	0.01
		Female	32.32	5.43		
3	Gregariousness	Male	39.83	7.54	5.4	0.01
		Female	34.76	8.64		
4	Objectivity	Male	38.37	5.97	5.2	0.01
		Female	34.82	6.24		

From the above table, it is clear that all the obtained t-values are significant at 0.01 level and hence the null hypothesis is rejected. There is significant difference between the male and female Mathematics teachers on all the personality variables. Also the mean values show that male Mathematics teachers possess better Emotional adjustment, Endurance, Gregariousness and Objectivity compared to female Mathematics teachers

Table 4
LOCALITY WISE COMPARISON OF THE SCORES OF PERSONALITY VARIABLES

Sl. No	Variables	Category	Mean	S.D	t-value	Level of Significance
1	Emotional Adjustment	Rural	33.12	6.03	3.45	0.01
		Urban	35.58	6.15		
2	Endurance	Rural	32.41	5.33	3.55	0.01
		Urban	34.58	5.16		
3	Gregariousness	Rural	34.98	8.09	4.28	0.01
		Urban	39.09	8.4		
4	Objectivity	Rural	34.58	4.76	5.05	0.01
		Urban	38.17	7		

Table 4 shows that all the obtained t-values are significant at 0.01 level and hence the null hypothesis is rejected. i.e., there exists significant difference between rural and urban Mathematics teachers on all the personality variables. Also the mean values show that urban Mathematics teachers possess more Emotional adjustment, Endurance, Gregariousness and Objectivity compared to rural Mathematics teachers.

Table 5
TYPE OF MANAGEMENT WISE COMPARISON OF THE SCORES OF PERSONALITY VARIABLES

Sl. No	Variables	Category	Mean	S.D	t-value	Level of Significance
1	Emotional Adjustment	Government	35.62	5.44	3.05	0.01
		Private	33.46	6.69		
2	Endurance	Government	34.89	7.71	2.25	0.05
		Private	32.79	8.36		
3	Gregariousness	Government	38.52	7.95	2.49	0.05
		Private	36.1	8.83		
4	Objectivity	Government	37.5	6.61	2.42	0.05
		Private	35.73	6.43		

From table 5 it is clear that the calculated t-values are significant and hence the null hypothesis is rejected. i.e., there exists significant difference between Mathematics teachers working in government schools and those in private schools in all the personality variables. Also the mean values indicate that government school teachers possess more Emotional adjustment, Endurance, Gregariousness and Objectivity compared to private school Mathematics teachers.

Table 6
COMPARISON OF THE SCORES OF TEACHER EFFECTIVENESS BASED ON THE BACKGROUND VARIABLES

Sl. No	Category	N	Mean	S.D	t-value	Level of Significance
1	Male	97	40.54	6.98	0.28	N.S
	Female	103	40.2	7.21		
2	Rural	15	40.65	6.9	0.51	N.S
	Urban	85	40.25	6.81		
3	Government	91	39.65	7.35	1.86	N.S
	Private	101	41.12	6.3		

From table 6 it is clear that the calculated t-values are not significant at any level. Hence the null hypothesis is accepted. i.e., sex, locality and type of management have no effect on teacher effectiveness of the Mathematics teachers.

1. Analysis of scores using correlation

Table 7
CORRELATION BETWEEN TEACHER EFFECTIVENESS AND PERSONALITY VARIABLES

Sl. No	Variables Correlated	r-value	Level of Significance	Verbal Interpretation of 'r'
1	Teacher effectiveness and Emotional Adjustment	0.649	0.01	Marked or substantial
2	Teacher effectiveness and Endurance	0.626	0.01	Marked or substantial
3	Teacher effectiveness and Gregariousness	0.588	0.01	Marked or substantial
4	Teacher effectiveness and Objectivity	0.582	0.01	Marked or substantial

The study reveals that there exists positive and significant correlation between the selected personality variables and teacher effectiveness of Mathematics teachers. Also the more emotionally adjusted, endurant, gregarious, and objective a mathematics teacher is, the more will be his/her teacher effectiveness.

FINDINGS AND CONCLUSION

1. Sex, locality and type of management show significant difference in the personality of Mathematics teachers.
2. Male mathematics teachers possess more Emotional adjustment, Endurance, Gregariousness and Objectivity compared to female Mathematics teachers.
3. Urban Mathematics teachers possess more Endurance, Gregariousness and Objectivity compared to female Mathematics teachers.
4. Government school teachers possess more Emotional adjustment, Endurance, Gregariousness and Objectivity compared to private school Mathematics teachers.

5. The variables sex, locality and type of have no significant difference in the teacher effectiveness of Mathematics teachers.

6. There exists significant relationship between teacher effectiveness and personality of Mathematics teachers.

Research Paper

EDUCATIONAL SIGNIFICANCE OF THE STUDY

The present investigation clearly indicates that teacher effectiveness has a positive and significant relationship with the personality of Mathematics teachers. If the Mathematics teachers possess the desired personality variables, Mathematics teaching can be made more effective. Also care must be taken to structure personality development programmes for Mathematics teachers during in-service and pre-service programmes.

REFERENCE

1. Agostino, V.D. Jerome. (2009), *Predicting teacher performance with test scores and grade point average: A meta-analysis. American Educational Research Journal*, 46(1), 146-182.
2. Emis, Katherine, A., & Cooper, Tames, G. (1987). *Teacher's personality, teacher behaviour and their effects upon pupil achievement*, Retrieved on October 7, 2010 from www.Eric.com
3. Eysenck, H.J. (1971). *The Structure of Human Personality (3rd ed.)* Newyork: Methuen.
4. Gage, N.C. (1972). *Teacher Effectiveness and Teacher Education: The Search for a Scientific Basis.* Palto Alto: Pacific Book Publishers.
5. Guilford, J.P. (1954). *Fundamental Statistics in Psychology and Education.* New York: Mc Graw Hill Book Company Inc.

Owned & Published by Rev. Dr. S. Sebastian, S.J. from St. Xavier's College of Education, Palayamkottai, Tirunelveli -2. Printed by G. Kanagasabapathi at Muthulethumi Press, 123-G, Trivandrum Road, Palayamkottai - 627 002.
Editor : Rev. Dr. S. Sebastian, S.J.