



Effect of teaching aptitude and neuroticism on teacher effectiveness of primary school's female teachers

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Abstract

The present study was conducted to find out the effect of teaching aptitude along with neuroticism dimension of personality on teacher effectiveness. This study was conducted on 320 female teachers. Stratified random sampling was used to select female teachers working in government schools located in and around Raipur Chhattisgarh. Hindi version of Eysenck Personality Questionnaire (EPQ) prepared by Jitendra Mohan (1985) was used to assess neuroticism while Hindi version of Teaching Aptitude Test Battery prepared by Singh and Sharma (1986) was used to assess teaching aptitude of selected female teachers. Teacher effectiveness used as a dependent variable in the present study was assessed by scale prepared by Kumar and Mutha (1983). Results showed significant main effect of neuroticism and teaching aptitude on teacher effectiveness but interaction effect of these two variables was not observed on teacher effectiveness. It was concluded that neuroticism and teaching aptitude alone and not in interaction with each other influence teacher effectiveness in a group of female teachers.

Keywords: teacher effectiveness, neuroticism, teaching aptitude, female teachers

1. Introduction

Teacher has far reaching influence on the society he lives in and no other personality can have influence more profound than that of a teacher. Students are deeply affected by the teachers love and affection, character, competence and his/her moral commitment. Foundation of future life is led in early education and the students tend to determine their aims in life and their future plans, in consultation with their teachers. Therefore, a good, visionary and competent teacher can play only a prominent role in making the future of his students (Raina, 2007)

Due to importance of teacher in shaping up of good society, their effectiveness has been analysed in the light of quite a few variables. A number of factors like age, seniority, communication style, intelligence, training, stress, teaching styles, personality and teaching aptitude have been linked with teacher effectiveness. (Sehgal and Kaur 1995; Pandey and Maikuri, 2001, Thornton *et al.* 2005; Rimm-Kaufman and Hamre, 2010; Ripski *et al.*, 2011; Singh, 2012, Kaur, 2013, Tomar, 2015, Bala, 2017) [16, 11, 18, 13, 14, 17, 7, 19, 1]

There are several reasons for attributing such immense importance to the personality of a teacher. The first and foremost is that the personality of the teacher influences his/her relationship with pupils. In fact, in a survey of 1,000 adolescent school children, Sehgal (1955) [16] found children liking those teachers best who were calm and relaxed, gave them a feeling of security, and used to physical punishment. A well balanced, non-anxious teacher can create a healthy emotional climate of learning and would be at ease with his/her pupils. One such Eysenckian personality dimension is neuroticism. It shows a person's emotional stability and general temper. Timid, wary, anxious, fearful, moody etc. are characteristics of neuroticism.

Similarly teaching aptitude has been attributed to teacher

effectiveness. "Aptitude is a condition, a quality or a set of qualities in an individual which is indicative of the probable extent to which he will be able to acquire under suitable training, some knowledge, skill or composite knowledge, understanding or skill, such as ability to contribute to art or music, mechanical ability, mathematical ability or ability to read and speak a foreign language". (Traxler, 1957) [20] An aptitude is not a unitary trait of human personality but a combination of various traits. Aptitude not only means merely logical reasoning but also abstract reasoning, arithmetical reasoning, certain temperamental qualities like interest in experimentation and initiative for invention, personality characteristics like hard work and persistence.

Hence it would be interesting to assess the impact of teaching aptitude with personality dimension neuroticism on teacher effectiveness of primary school's female teachers. Taking all the necessary facts into consideration, the present study was planned.

Objective

The objective of the present study is to assess main and interaction effect of neuroticism and teaching aptitude on effectiveness of primary school's female teachers.

Hypothesis

It was hypothesized that the normal female teachers with high teaching aptitude would score significantly higher on teacher effectiveness scale than neurotic female teachers with low teaching aptitude.

Methodology

Sample

To conduct the study 320 female teachers (Ave. age 33.27 yrs) were selected from population of female primary school

teacher working in government schools situated in Raipur district. Sample was selected with the help of stratified random sampling method.

Tools

Hindi version of Eysenck Personality Questionnaire (EPQ) prepared by Jitendra Mohan (1985) [10] used to assess neuroticism dimension of personality. This test is based on original EPQ constructed by H.J. Eysenck (1978) and mainly useful to tap E and N dimensions in adults ranging in age from 17 years and above. The overall split-half reliabilities of E, N, P and L scales of EPQ (Hindi version) are 0.69, 0.86, 0.36 and 0.78 respectively. The test-retest overall reliability for scale E is 0.93, for scale N is 0.96, for scale P is 0.85 and for scale L is 0.96 after a one month time gap between test and retest.

A Hindi version of Teaching Aptitude Test Battery (T.A.T.B.) prepared by Singh and Sharma (1986) was used to assess teaching aptitude of selected female teachers. It has 120 items in all, for tapping teaching aptitude of elementary. The areas covered in this test battery are - mental ability, attitude towards children, adaptability, professional information and interest in profession respectively. The scores on total test, were validated against rating of the instructors of teacher training institutions. Product moment correlation was calculated between scores obtained on the test and the positions of trainees given by the instructors. The value of coefficient of correction was found to be 0.421 with a probable error of +0.026.

Dependent variable i.e. teacher effectiveness was assessed by Teacher effectiveness scale prepared by Kumar and Mutha (1983). It consists of 69 positive worded items which covers area such as academic, professional, social, emotional, moral and personality. The split-half reliability of the scale, applying the Spearman-Brown formula is found to be 0.67 (N=100) with an index of reliability of 0.82. The face validity of the measures is fairly high. The content validity is ensured as the items for which there has been 100 percent agreement amongst judges regarding their relevance to teacher effectiveness are included in the scale.

Procedure

To get a final sample of at least 80 cases in each cell of 4 cells of 2x2 factorial design, stratified random sampling method was used. From initial population of 1200 female teachers of Raipur district, Hindi version of Eysenck's personality questionnaire prepared by Jitendra Mohan (1985) [10] was administered. After sufficient rest Hindi version of Teaching Aptitude Test Battery (T.A.T.B.) prepared by Singh and Sharma (1986) was administered. Then after, subjects were classified into neurotic-normal and high-low teaching aptitude groups by using two opposite extreme groups technique with the help of Q3 and Q1, as cutting point. Thus, using stratified random sampling technique, final samples were selected having 80 cases in cell of 4 cells design, making a total of 320 subjects. Finally, identified 320 cases were subjected on teacher effectiveness scale by Kumar and Mutha (1983) to measure their teacher effectiveness. The obtained results are presented in table 1.

Table 1: Effect of Neuroticism (A) x Teaching Aptitude (B) on Teacher Effectiveness (N=320)

		Teaching Aptitude (B)		Marginal Mean
		High (b ₁)	Low (b ₂)	
Neuroticism (A)	Normal (a ₁)	N=80 M=310.71 S.D. = 15.64	N=80 M=298.65 S.D.=12.81	304.68
	Neurotic (a ₂)	N=80 M=298.03 S.D.=16.30	N=80 M=283.40 S.D.=14.91	290.71
Marginal Mean		304.37	291.02	

Table 2: ANOVA Summary

Source of Variation	SS	DF	MS	F
A	15596.1	1	15596.1	69.50**
B	14257.8	1	14257.8	63.54**
AB	132.613	1	132.613	0.59 (NS)
Within treatment(Error)	70904.7	316	224.382	

** Significant at .01 level; NS Not Significant

Table 1 reveals the following facts-

- The main effect of neuroticism on teacher effectiveness was found to be statistically significant at .01 level (F=69.50, p<.01). It reveals that normal female teachers showed significantly more magnitude of effective teaching (M=304.68) as compared to female teachers showing neurotic tendencies (M=290.71).
- The main effect of teaching aptitude on teacher effectiveness was found to be statistically significant at .01 level (F=63.54, p<.01). It reveals that female teachers with high teaching aptitude showed significantly more magnitude of effective teaching (M=304.37) as compared to female teachers with low teaching aptitude (M=291.02).
- The F of 0.59, an indicator of interaction effect of neuroticism and teaching aptitude on teacher effectiveness in a group of female teachers was not found to be statistically significant. It shows that neuroticism and teaching aptitude were jointly incapable of generating variance upon teacher effectiveness in a group of female teachers.

Discussion

Results reveal that neurotic subjects were found to be significantly poor in teacher effectiveness than the normal subjects. The phenotype manifestation of neuroticism shows the people high in neuroticism (Neurotic Ss) tend to be emotionally unstable, easily aroused, anxious, worrisome and frequently complaining about anxieties and body ache, whereas people low in neuroticism(Normal Ss) are emotionally stable, reliable, calm, less easily aroused and even-tempered (Eysenck and Reichen, 1965) [3]. Since neurotics are over sensitive and more anxious, they respond very quickly to a novel situation. Those high in neuroticism are generally given to anxiety, sadness, worry, and low self-esteem. They may be temperamental or easily angered, and

they tend to be self-conscious and unsure of themselves (Lebowitz, 2016a) ^[9]. Because of these characteristics the subjects of the present study, teachers of neurotic category show poor teacher effectiveness. Similar findings have been reported by Judge *et al.*, 2002, Fraser, 2007, Rushton *et al.*, 2008, Lebowitz, 2016a ^[6, 4, 15, 9] in which they reported characteristics related to neuroticism such as impulsivity, emotional instability, irritability, psychopathology, fearfulness, poor social adjustment and similar constructs are associated with teacher effectiveness.

The independent variable – teaching aptitude scores is obtained by adding the scores of the five sub-test viz.- mental ability, attitude towards children, adaptability, professional information and interest in profession. The results revealed it clearly that, teachers who were having high teaching aptitude were found more effective than teachers who have low teaching aptitude which can be explained as the teachers whose scores are mental ability-wise high showed better teacher effectiveness than the teachers who have scored low on mental ability sub-test. In fact, for being an effective teacher one must possess good mental ability. If a teacher has good mental ability he/she can understand the problems of students, can explain the subject before the students in a logical manner, can perceive the problem of students genuinely. Apart from the academic matter he/she can manage the classroom effectively whereas the teachers who are low on mental ability disclose lack in these characteristics. Ghatvisave (2012) ^[5] in his study found a positive correlation between teaching aptitude and teacher effectiveness.

Results reveal that both neuroticism and teaching aptitude are potentially enough to generate variance independently upon dependent variable (teacher effectiveness) rather than being jointly with any other independent variable. This may be attributed to the independence of each of the two factors for interaction.

Conclusion

On the basis of results and associated discussion it may be concluded that neuroticism and teaching aptitude alone but not in interaction with each other able to influence teacher effectiveness in a group of female school teachers.

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