

A STUDY OF TEACHING APTITUDE OF PROSPECTIVE TEACHERS IN RELATION TO SEX, INTELLIGENCE AND ACADEMIC ACHIEVEMENT

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ABSTRACT

The present study has been done to investigate the study of teaching Aptitude of Prospective teachers in relation to Sex, Intelligence and Academic Achievement of Malwa region in Punjab. Descriptive Survey Method of research has been used. The study was conducted over a random sample of 600 prospective teachers (300 males and 300 females). Teaching Aptitude Test Battery by R.P. Singh and S.N. Sharma was used. The tool consists of the following five dimensions: Mental ability, Attitude towards children, Adaptability, Professional information and Professional interest. Raven's standard Progressive Matrices Scale by J.C. Raven was used. Academic Achievement has taken in reference of marks obtained by student teacher in B.A/ B.Sc/B.Com examination. Statistical techniques used for the study were Mean, SD, t-test and ANOVA used for analysis and interpretation of data. The result reveals that there is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of academic and intelligence.

Keywords: Teaching Aptitude, Academic Achievements, Intelligence, Sex

INTRODUCTION

There is always a need to evaluate the efforts which are being made by the training institutions to achieve the desired goals. It is highly recognized that the teacher effectiveness, the aptitude of the teacher, a healthy attitude towards world of work and personality contribute a lot in successful teaching. Adapting training methods to specific teacher traits to best facilitate the training effects for pre-service teachers is an important. There are many factors in the lives of today's children that operate against their developing a positive, substantive and internal sense of the importance of achievement. The lack of a system that has worked for such achievement in the lives of many of their parents and community members, and the obtrusive presence of get-rich-quick models in the culture of the streets, are factors that strongly mediate against our young people in this regard. Notwithstanding, the meaning of achievement for young learners is especially important now. The level of academic skills necessary for successful entry into today's job markets, with or without a college education, has risen to the point that a focus on achieving academic success is necessary for all students throughout each and every year of schooling.

The quality of teacher, in fact, is a vital determinant of learning achievement of children. Even the Delor Commission Report recognized its importance as it stated in his report, "Improving the quality of education depends on first improving the recruitment, training, social status and condition of work of teachers. They need the appropriate knowledge and skills, personal characteristics, professional prospects and motivation if they are to meet the expectations placed upon them" (Delor, 1996)

This critical condition underscores the importance of developing, or redeveloping, a culture of achievement. In such a culture, learning, progressing academically, and working steadily and purposefully in school is seen as the standard pattern of behavior for students in elementary and secondary school. For this to happen Kids have to "get it" – that is, there must be a substantive meaning of achievement that they understand and believe to the extent that it becomes the primary piece of their motivation to do well academically. This motivated desire can then result in performance that is reinforced in the school, the home, and the community until it becomes the guiding pattern of a child's life.

The need for higher achievement, incidentally, is not confined to low-income

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communities. Many middle class areas report consistently lower level of academic achievement and attainment; of children finishing high school without extended sequences of mathematics, science, languages and student performance deficit in other demanding areas that require diligence and support. Surely these are indicators of important work that remains to be done in terms of establishing and raising expectation and motivated for high performance. The issue of student achievement is presently receiving some of the national attention it needs. Sometimes, as a result of their communication competence, these students are too quickly mainstreamed into the regular classroom where they encounter difficulties understanding and completing school work in the more cognitively- demanding pedagogical needed for successful performance in academic subjects.

STATEMENT OF THE PROBLEM

“A study of Teaching Aptitude of Prospective Teachers in Relation to Sex, Intelligence and Academic Achievement.”

OBJECTIVES OF THE STUDY

The investigator set forth the following objectives for the study:-

- 1 To investigate the level of teaching aptitude of prospective teachers of Punjab state's
- 2 To know the independent effect of teaching aptitude of prospective teachers in relation to sex.
- 3 To know the independent effect of teaching aptitude of prospective teachers in relation to Intelligence.
- 4 To know the independent effect of teaching aptitude of prospective teachers in relation to Academic Achievement.
- 5 To study main and interactional effects of teaching aptitude among prospective teachers in relation to the following background factors:
 - I Sex and Intelligence
 - II Intelligence and Academic Achievement
 - III Sex and Academic Achievement
- 6 To study main and interactional effects of teaching aptitude of prospective teachers in

relation to Sex, Intelligence and Academic Achievement

HYPOTHESES OF THE STUDY

In order to achieve the objectives of the study following hypotheses would be formulated by the investigator:

- 1 There is no significant difference in teaching aptitude of male and female prospective teachers in the Punjab.
- 2 There is no significant difference in teaching aptitude of low and high intelligent prospective teachers in the Punjab.
- 3 There is no significant difference in teaching aptitude of low and high academic Achievement of prospective teachers in the Punjab.
- 4 There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of sex and intelligence.
- 5 There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of academic Achievement and intelligence.
- 6 There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of sex and academic Achievement.
- 7 There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of sex and intelligence and academic Achievement.

DELIMITATIONS OF THE STUDY

This study was limited by a small sample size that covered all the four districts of Malwa region. Four districts (Bathinda, Faridkot, Muktsar and Mansa) which existed in Malwa region of Punjab State were selected under study. The total sample that was selected from various education colleges are as follows:-

S.No	District	Male	Female	Total
1	Bathinda	75	75	150
2	Faridkot	75	75	150
3	Muktsar	75	75	150
4	Mansa	75	75	150
	Total	300	300	600

METHOD ADOPTED IN THE PRESENT STUDY

In the present study, descriptive survey method was employed to know the teaching aptitude of Prospective teachers in relation to sex, intelligence and Academic Achievement.

SAMPLE

The study was conducted over a random sample of 600 prospective teachers (300 males and 300 females)

TOOLS AND TECHNIQUES

I. Teaching Aptitude Test Battery (T.A.T.B): This test is meant for measuring the aptitude towards teaching profession. The present test named as Teaching Aptitude Test Battery (1998) has been constructed and standardized by Dr. R.P. Singh and Dr. S.N. Sharma of Patna University, Patna (Bihar) .It has been published by National Psychological Corporation, Agra.

II. Raven's Standard Progressive Matrices (SPM): Raven's standard Progressive Matrices Scale designed and standardized by J.C.Raven (1960). This test consists of only designs or patterns and no verbal statements or indications. It is fully a non-verbal test.

III. Academic Achievement: Academic Achievement has taken in reference of marks obtained by student teacher in B.A/ B.Sc/ B.com examination.

STATISTICAL TECHNIQUES

The statistical techniques used for the study were Mean , standard Deviation , t test, ANOVA (one way, two way) used for analysis and interpretation of data.

ANALYSIS OF DATA

Analysis of data was done by using different statistical Techniques. This was done as per instructions given in the manuals of the test.

TO KNOW DIMENSION WISE TEACHING APTITUDE AMONG PROSPECTIVE TEACHERS IN RELATION TO SEX

Table :1

S.No.	Dimensions	Male Prospective Teachers			Female Prospective Teachers			"t" Ratio
		N	Mean	S.D	N	Mean	S.D	
1	Mental Ability	300	18.48	4.4	300	18.93	4.4	1.25
2	Attitude towards children	300	12.24	2.38	300	12.54	2.41	1.55
3	Adaptability	300	17.56	3.40	300	17.95	3.47	1.38
4	Professional information	300	17.25	3.02	300	17.58	3.1	1.30
5	Interest in profession	300	6.86	1.61	300	7.09	1.63	1.71
	Total	300	72.41	14.71	300	74.10	14.93	1.40

Table 1 depicts that the mean score of Female prospective teachers on mental ability dimension (M=18.93) higher than the mean score of male prospective teachers (M =18.48) 'traitor is 1.25 Which is not significant 0.05 level of confidence? The results indicate that female prospective teachers are not significantly on mental ability than male prospective teachers.

On teaching aptitude which is the sum up of all dimensions, we can say that there is no significant difference in the teaching aptitude of male and female prospective teachers

Test of significant differences between the mean scores on Teaching Aptitude in relation to Sex of Various Districts of Malwa Region Table 2

Group	Sex	N	Mean	S. D	t-Value	Significant .05 level	Degree of freedom
Teaching Aptitude (Faridkot district)	Male	75	73.17	15.22	0.65	Not Significant	148
	Female	75	74.77	14.88			
Teaching Aptitude (Muktsar District)	Male	75	72.57	14.06	0.43	Not Significant	148
	Female	75	73.57	14.24			
Teaching Aptitude (Mansa District)	Male	75	70.2	14.36	1.54	Not Significant	148
	Female	75	74.08	16.49			
Teaching Aptitude (Bathinda District)	Male	75	73.69	15.21	0.12	Not Significant	148
	Female	75	73.99	14.25			
Teaching Aptitude of whole Malwa region	Male	300	72.41	14.71	1.4	Not Significant	598
	Female	300	74.1	14.93			

INFERENCES

In viewing the analyzed data presented in Table 2 to know the significance difference in teaching aptitude of male and female teachers of whole Malwa region, In conclusion, we can say that there is no significant difference in the teaching aptitude of male and female prospective teachers of whole Malwa region.

Test of significant differences between the mean scores on Teaching Aptitude in relation to Intelligence of Various Districts of Malwa Region

Table 3

Teaching Aptitude	Intelligence	N	Mean	S. D	t-Value	Significant .05 level	Degree of freedom
Bathinda District	High intelligent	139	42.71	5.44	4.61	Significant	148
	Low intelligent	11	35.13	0.32			
Fardkot District	High intelligent	123	36.21	0.72	8.21	Significant	148
	Low intelligent	27	34.97	0.64			
Muktsar District	High intelligent	119	36.41	1.14	6.71	Significant	148
	Low Intelligent	31	34.6	1.91			
Mansa District	High Intelligent	115	36.35	1	7.46	Significant	148
	Low Intelligent	35	35.01	0.61			
All Malwa Region	High intelligent	496	38.11	4.14	7.86	Significant	598
	Low intelligent	104	34.89	1.16			

INFERENCES

In viewing the analyzed data presented in Table No. 3 to know the significance difference in teaching aptitude of low and high intelligent teachers of whole Malwa region, In conclusion, we can say that there is significant difference in the teaching aptitude of low and high intelligent teachers of whole Malwa region. Intelligence plays an important role in effecting Teaching Aptitude of prospective teachers. From analysed data we found that high intelligent had a significant higher mean intelligent Quotient (I.Q) as compared to low intelligent.

Test of significant differences between the mean scores on Teaching Aptitude in relation to Academic Achievement of

**Various Districts of Malwa Region
Table 4**

Teaching Aptitude	Academic Achievement	N	Mean	S. D	t-Value	Significant .05 level	Degree of Freedom
Bathinda District	High Achiever	130	72.52	8.86	6.73	Significant	148
	Low Achiever	20	59.13	0.54			
Fardkot District	High Achiever	104	60.95	1.37	8.77	Significant	148
	Low Achiever	46	58.99	0.95			
Muktsar District	High Achiever	106	61.41	1.98	8.68	Significant	148
	Low Achiever	44	58.6	1.26			
Mansa District	High Achiever	102	61.34	1.81	9.02	Significant	148
	Low Achiever	48	58.82	0.98			
All Malwa region	High Achiever	442	64.56	7.18	9.94	Significant	598
	Low Achiever	158	58.85	1.02			

INFERENCES

In viewing the analyzed data presented in Table No. 4 to know the significance difference in teaching aptitude of high achiever and low achiever teachers of whole Malwa region, In conclusion, we can say that there are significant differences in the teaching aptitude of high achiever and low achiever teachers of whole Malwa region. Academic Achievement plays an important role in effecting Teaching Aptitude of prospective teachers. From analysed data we found that high achievers were more intelligent as compared to low achievers due to lack of their self confidence, inferiority complex and manifest other forms of deviant behaviour.

**To study main and interactional effects of teaching aptitude of prospective teachers in relation to sex, intelligence and academic achievement
Table no. 5**

	Variables	Sum Squares	of df	Mean Square	F	Sig.
Main Effects	(Combined)	1610.98	3.00	536.99	2.45	0.06
	Academic Achievement	0.34	1.00	0.34	0.00	0.97
	Intelligence	1399.73	1.00	1399.73	6.39	0.01
	Sex	322.37	1.00	322.37	1.47	0.23
2-Way Interactions	(Combined)	817.73	3.00	272.58	1.25	0.29
	Academic Achievement * Intelligence	811.53	1.00	811.53	3.71	0.05
	Academic Achievement * Sex	28.13	1.00	28.13	0.13	0.72
	Intelligence * Sex	0.76	1.00	0.76	0.00	0.95
3-Way Interactions	Academic Achievement * Intelligence * Sex	3.63	1.00	3.63	0.02	0.90
Model		2431.32	7.00	347.33	1.59	0.14
Residual		129377.09	591.00	218.91		
Total		131808.41	598.00	220.42		

INFERENCES

The Table 5 shows that the obtained “f” ratio is 2.45 for the main effect was found to be significant. The two way interaction effect between Academic Achievement * Sex & Intelligence * Sex was not found to be significant at 0.05 level of confidence however Academic Achievement * Intelligence was found to be significant at 0.05 level of confidence. The f value for three way interaction effect of Academic Achievement * Intelligence * Sex didn't show any significant difference.

MAJOR FINDINGS

- 1) Normal teaching aptitude found according to opinion of 51.16% respondents of Malwa region.
- 2) In comparison of all districts highest and lowest teaching aptitude revealed in prospective teachers of Muktsar and Mansa districts respectively.
- 3) It found that the mean score of the Male prospective teachers is 72.41, which falls on the interval 70-90.

- 4) It found that the mean score of the Female prospective teachers is 74.10, which falls on the interval 70-90.
- 5) In comparison of all dimensions of Teaching aptitude, highest mean score in mental ability dimension I is 18.71 and lowest mean score in Professional interest dimension is 6.98.
- 6) It found that on all dimensions of teaching Aptitude, there is no significant difference in the teaching aptitude of male and female prospective teachers..
- 7) There is no significant difference in the teaching aptitude of male and female prospective teachers of whole Malwa region.
- 8) There is significant difference in the teaching aptitude of low and high intelligent teachers of whole Malwa region.
- 9) There is significant difference in teaching aptitude of higher Achiever and low Achiever teachers of whole Malwa region.
- 10) There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of sex and intelligence.
- 11) There is significant difference in teaching aptitude of prospective teachers in relation to interaction effect of Academic achievement and intelligence.
- 12) There is no significant difference in teaching aptitude of prospective teachers in relation to interaction effect of Academic achievement and Sex.

SUGGESTIONS FOR FURTHER RESEARCH

Therefore, the studies reviewed and the findings of this study led the investigator to suggest the following areas for further research.

1. Study of the affective correlates discriminating between teacher trainees with high and low Teacher Aptitude.
2. Affective factor structure of teacher trainees with high Teaching Aptitude.
3. The forecasting efficiency of Teacher Aptitude when the trainees enter into teaching profession.
4. A study on the techniques and strategies to develop Attitude towards Teaching Profession.

5. The efficiency of Achievement in Teacher Education and Attitude towards Teaching Profession in predicting success in Teaching.
6. Developing a pre service training programme so as to produce teachers with favourable Attitude towards Teaching and Teaching Interest.
7. Study of socio-familiar characteristics associated with High and Low Teacher Aptitude.
8. A comparative study may be conducted on rural and urban Prospective teachers, aided and unaided colleges, private and Government institutions.
9. A comparative study may be conducted on Art and Science Prospective teachers.
10. A research study may be undertaken on achievement motivation among the teacher trainees.
11. A comparative study may be conducted on teacher education in India and other countries.
12. Teaching aptitude is innate or acquired so teacher educator and member concerns should take the responsibilities seriously plan the training process so that capacities and efficiency for the task involved should be acquired during the training course by the trainees.

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