

Teacher Trainees performance: The role of Background Variables

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ABSTRACT - Teachers today should no longer be mere disseminators of knowledge. The main tasks are to help young people to cope with increasing information mass and putting it into some order. They must know how to appraise and distinguish that which is useful to the development of individual society, not only, what is relevant at a given moment but also what is likely to be relevant in future. Thus, the teacher education program is aimed at developing in student teacher the various teaching skills, abilities, knowledge and attitudes. In order to achieve this aim whole program of teacher education includes both theoretical study on teaching learning and practice teaching.

Keyword: *Educational background, Academic performance, Viva – Voce performance, Streams of education, Practice teaching performance, Teacher Education.*

I. INTRODUCTION

Education is a process of human enlightenment and empowerment for the achievement of a better and higher quality of life. A sound and effective system of education results in the enfoldment of learner's potentialities, enlargement of their competencies and transformation of their interests, attitudes and values. A teacher is considered as a keystone of education set-up. The quality of education depends upon a quality of teachers; the identification of qualified and able teaching personnel constitutes one of the important aspects of all educational concerns.

A. Variables of the study:

For the purpose of their study, certain variables have been selected which are operationally defined.

- I. **Past Achievements** : It refers to knowledge attained or skill developed in different subjects of study, usually designated by test scores at graduate or post – graduation examinations.
- II. **Academic Performance:** It refers to overall development of students and their actual accomplishment in B.Ed. course.

B. Objectives of study:

- I. To study the relationship of the theory performance of B.Ed. students and their past achievements.
- II. To study the relationship between the teaching performance of B.Ed. students and their past achievements.
- III. To study the relationship between the viva-voce performance of B.Ed. students and their past-achievement,
- IV. To study the relationship between the overall performance of B.Ed. students

- V. To study the relationship between the theory performance of B.Ed. students and their streams of education,
- VI. To study the relationship between the practice teaching performance of B.Ed. students.

C. Hypothesis:

Keeping in mind the objectives of the study, following null hypothesis were formulated

- I. There will be no significant relationship between the viva-voce performance of B.Ed. students and their past-achievement.
- II. There will be no significant relationship between the overall performance of B.Ed. students and their past achievement.
- III. There will be no significant relationship between the theory performance of B.Ed. students and their streams of education .
- IV. There will be no significant relationship between the practice teaching performance of B.Ed. students and their streams of education, .

Sample of the study

For the present study, the B.Ed. Students of two academic years of the M.S. University of Baroda constitutes the sample.

Description of Tools

Two information schedules were proposed by the investigator, one to collecting the background data regarding the variables past percentage and another for collecting the data regarding the academic achievement of B.Ed. students in theory and practical teaching

II. DATA ANALYSIS AND INTERPRETATION

As it is a casual comparative study, the data analysis for the present study was done quantitatively with the help of both descriptive statistics and inferential statistics.

VIVA — VOCE PERFORMANCE AND THE PAST ACHIEVEMENT OF THE B.ED, STUDENTS

To study to relationship between viva-voce performance and the past achievement of B.Ed. students following null Hypothesis was formulated.

Ho3 There will be no significant relationship between the viva-voce performance of B.Ed. students and their past achievement.

The correlation and association of past percentage of B.Ed. students with their achievement in Viva-Voce was computed. The correlation and their significance levels were studied with the help of product moment coefficient of correlation which is given in table 4.5. The association and their level of significance was studied with the help of uncorrelated t-test which is given in table 4.5.

Table 4.5 : Coefficient of correlation, degree of freedom and level of significance showing the correlation between past percentage of B.Ed. students and their B.Ed. achievement in Viva-Voce.

Correlation with	Correlation	Degree of Freedom (df)	Significance
Viva-voce	0.444	294	0.01

From table 4.5 the coefficient of correlation between the past percentage of B.Ed. students and their achievement in Viva-voce in B.Ed. was found 0.444 respectively. It was found positive through the magnitude of the coefficient of correlation was found average for viva-voce performance, it was found significant at 0.01 level with 294 degree of freedom. So it can be said that past percentage was found positively, and significantly correlated with the viva-voce performance of B.Ed. students. In other words, it can be said that students with high past percentage secure high percentage of marks in B.Ed. viva-voce performance and students with low past percentage secure low percentage in B.Ed. viva-voce performance. Further, to support the correlation between past percentage and achievement of B.Ed. students in Viva-voce and to find the association of these two variables t-test was used to see the significance of difference between the means of achievement of high past percentage students group and low past percentage students group and low past percentage students group. Analysis oft-test is given in table 4.6.

Table 4.6 : Means, Standard Deviations, Standard Error of Means of groups (> means and Means of past percentage) in Q. Ed. viva-voce achievement along with number of students in different groups (N), t-value, degree of freedom (df) and level and significance.

Achievement	Groups	N	Mean	SD	SE	t-value	df	Significance
Viva-voce	>Mean	12	76.8	9.70	0.8	8.361	294	0.01
	<Mean	9	65.9	12.86	0.9			

From table 4.6 it was observed that the means of the groups with high and low past percentage in B.Ed. viva-voce achievement were 76.89 and 65.92 respectively. The Standard Deviations of the same groups with high and low past percentage in B.Ed. viva-voce achievement were 9.70 and 12.86 respectively. The standard errors of means for groups with high and low past percentage in B.Ed. viva-voce achievement were 0.85 and 0.99 respectively. In terms of mean, standard deviation and standard error, it can be said that the mean viva-voce achievement of B Ed students with high past percentage was found more than that of the B.Ed. students with low past percentage. The t-value of 8.361 was also found significant at 0.01 level with 294 degree of freedom which indicates that the mean theory achievement of the group with high past percentage was significantly higher than that of the group with low past percentage. This finding supports the result of correlation. So, it can be said that past percentage of B.Ed. students is associated with their achievement in B.Ed. viva-voce and students with high past percentage do truly better in B.Ed. viva-voce achievement in comparison to students with less past percentage. Hence the null hypothesis was rejected.

OVERALL PERFORMANCE AND THE PAST ACHIEVEMENT OF THE B.ED. STUDENTS .

To study the relationship between overall performance and the past-achievement of B.Ed. students . following null hypothesis was formulated.

Ho4 There will be no significant relationship between the overall performance of B.Ed. students and their past achievement ..

The correlation and association of past percentage of B.Ed. students with their overall achievement was computed. The correlation and their significance level were studied with the help of product moment coefficient of correlation which is given in table 4.7.

Table 4.7 Coefficient of correlation, degree of Freedom and level of significance showing the correlation between past percentage of B.Ed. students and their overall achievement in B.Ed.

Correlation with	Correlation	Degree of freedom (f)	Significance
Overall performance	0.533	294	0.01

From table 4.7, the coefficients of correlation between the past percentage of B.Ed. students and their overall achievement in B.Ed. was found 0.533 respectively. It was found positive and significant at 0.01 level with 294 degree of freedom. So it can be said that past percentage was found positively, and significantly correlated with the Overall achievement of B.Ed. students. In other words, it can be said that students with higher past percentage

secure high percentage of marks in overall achievement in B.Ed. and students with low past percentage secure low percentage in overall achievement in B.Ed. Further to support the correlation between past percentage and overall achievement of B.Ed. students and to find the association of these two variables t-test was used to see the significant difference between the means of achievement of high past percentage students group and low past percentage students group. Analysis of t-tests is given in table 4.8

Table 4.8 : Means, Standard Deviations, Standard Errors of means of Groups (>Means of <Means of past percentage) in overall achievement in B.Ed. along with Number of students in different Groups (N), t-value, degree of freedom (df) and level of significance.

Achievement	Groups	N	Mean	SD	SE	t-value	df	Significance
Overall	>Mean	12	80.16	6.48	0.57	10.61	29	0.01
	<Mean	16	70.74	10.61	0.68			
		7						

From table 4.8 it was observed that the means of the groups with high and low past percentages in overall achievement were 80.16 and 70.74 respectively. The standard deviations of the same groups with high and low past percentage in overall achievement in B.Ed. were 6.48 and 10.61 respectively. The standard errors of means for groups with high and low past percentage in Overall achievement in B.Ed. were 0.57 and 0.68 respectively. In terms of mean, standard deviation and standard error, it can be said that the mean overall achievement of B.Ed. students with high past percentage was found more than that of the B.Ed. students with low past percentage. The t-value of 10.61 was also found significant at 0.01 with 294 degree of freedom which indicates that the mean overall achievement of the group with high past percentage was significantly higher than that of the group with low past percentage. This finding supports the result of correlation. So, it can be said that past percentage of B.Ed. students is associated with their overall achievement in B.Ed. and students with high past percentage do truly better in overall achievement in B.Ed. in comparison to students with less past percentage, Hence, the null hypothesis was rejected.

THEORY PERFORMANCE AND THE STREAMS OF EDUCATION OF B.ED. STUDENTS FOR THE YEARS 1999-2000 AND 2000-20001.

To study the relationship between the theory performance and the streams of education of B.Ed. students. following null hypothesis was formulated.

H05 There will be no significant relationship between the theory performance of B.Ed. students and their streams of education.

As per the basic academic streams, B.Ed. students were divided into three groups i.e., Arts, science and commerce group on the basis of their graduation and post-graduation degree. The association of academic stream of B.Ed. students with their B.Ed. achievement in theory was computed. Attempt has been made to see the difference between arts, science and commerce groups of B.Ed. students in theory achievement. The analysis of variance (ANOVA) was used to see the difference between the mean theory achievement of B.Ed. students belonging to arts, science and commerce streams which is presented in table 4.9, 4.10, 4.11.

Table 4.9 Means, Standard Deviation and Standard Error of mean of the theory achievement of B.Ed. students of Arts, science and commerce streams.

Stream	N	Mean	SD	SE of Mean
Arts	138	67.10	10.11	0.86
Science	116	78.30	8.48	0.78
Commerce	42	79.81	6.73	1.03

From table 4.9 it was observed that 138, 116, and 42 students were there in the sample of B.Ed. student from the arts, science and commerce streams. The means of the arts, science and commerce category students were 67.10, 78.30 and 79.81 respectively in their B.Ed. theory achievement. The standard deviations for the arts, science and commerce category student were 10.11, 8.48 and 6.73 respectively. The standard errors of means for the same groups i.e. arts, science and commerce were found to be 0.86, 0.78 and 1.03 respectively in B.Ed. theory achievement. In terms of means, it can be said that the mean theory achievement of commerce group was found to be highest and the same for arts group was found to be lowest.

The mean theory achievement of science group was found to be in between the means of commerce group and arts group. In terms of standard deviation commerce group was found to be most homogeneous. To examine whether three groups differ truly or the difference is by chance in terms of theory achievement analysis of variance is used which is given in table 4.10.

Table 4.10 Summary of ANOVA showing Degree of freedom (df), sum of the square (ss), Mean Sum of the square (MSS), F-Value and Level of significance for the theory achievement (in percentage) of Arts, science and commerce groups of B.Ed. students.

Sources of variance	df	Ss	MSS	F-value	Significance
Among	2	9977.10	4988.55	59.98	0.01
With	293	24365.62	83.15		
Overall	295	34342.73			

From the table 4.10, it is observed that the variance among and within the groups are 4988.55 and 83.15 respectively. The F-value is found 59.98 with degree of freedom 2 and 293. The F-value is found to be significant at 0.01 level of

significance as the table value is found to be less than the calculated value with stated level of significance and df. Hence the null hypothesis was rejected As the F-value is found significant, it can be said that the means of the three groups i.e. arts, science and commerce differ truly in B.Ed. theory achievement. It does not tell us which means differ from some other. To test it. t-test is used which is given in table 4.11.

Table 4.11 : Degree of freedom, t-value, and level of significance for theory achievement (in percentage) for Arts, science and commerce streams of B.Ed. students.

Groups	df	t-value	Significance
Arts and Science	252	9.59	0.01
Arts and Commerce	178	9.41	0.01
Science and commerce	156	1.16	Not Significant

From table 4.11, it is observed that the t-value of 9.95 for the groups of arts and science stream students is found to be significant at 0.01 level of significance with degree of freedom (df) of 252. So, it can be said that the mean B.Ed. theory achievement of science stream students is significantly different from the same of arts stream students and science stream students do truly better than the arts stream students in B.Ed. theory achievement.

From table 4.11, it is also observed that the t-value of 9.41 for the groups of arts and commerce stream students is found to be significant at 0.01 level of significance with degree of freedom (df) of 178. So it can be said that the mean B.Ed. theory achievement of commerce stream students is significantly different from the same of arts stream students and commerce stream students do truly better than the arts stream students in B.Ed. theory achievement.

From the same table 4.11, it is observed that the t-value of 1.16 for the groups of science and commerce stream students is not found significant. So it can be said that the means of B.Ed. theory achievement of science and commerce stream do not differ significantly.

PRACTICE TEACHING PERFORMANCE AND THE STREAMS OF EDUCATION OF B.ED. STUDENTS .

To study the relationship between the practice teaching performance and the stream of . following null education of B.Ed. students for hypothesis was formulated.

Ho6 There will be no significant relationship between the practice- teaching performance of B.Ed. students and their streams of education.

The analysis of variance was used to see the difference between the mean theory achievement of B.Ed. students belonging to arts, science and commerce streams which is being presented in table 4.12, 4.13, 4.14.

Table 4.12 : Means, Standard Deviations and Standard Errors of means of the practice teaching performance (in percentage) of B.Ed. students of Arts, science and commerce streams.

Stream	N	Mean	SD	SE of mean
Arts	138	71.73	8.17	0.69
Science	116	80.85	6.20	0.57
Commerce	42	78.71	6.81	1.05

From table 4.12, it was observed that 138, 116 and 42 students were there in the sample of B. Ed. students from the arts, science and commerce streams. The means of the arts, science and commerce category students were 71.73, 80.85 and 78.71 respectively in their B.Ed. practice teaching performance. The standard deviations for the arts, science and commerce category students were 8.17, 6.20 and 6.81 respectively in B.Ed. practice teaching performance. The standard errors of means for same groups i.e. arts, science and commerce were found to be 0.69, 0.57 and 1.05 respectively in B.Ed. practice teaching performance. In terms of mean, it can be said that the mean practical achievement of science group was found to be highest and the same for as group was found to be lowest. The mean practical achievement of commerce group was found to be in between the means of science group and arts group. In terms of standard deviation science group was found to be most homogeneous and the arts group was found to be most heterogeneous. To examine whether three groups differ truly or the difference is by chance in term of practice teaching performance analysis of variance is used which is given in table 4.13.

Table 4.13 Summary of ANOVA showing degree of freedom (d), sum of the square (ss), Mean sum of the square (MSS), F-value and level of significance for practice teaching performance (in percentage) of arts, science and commerce group of B.Ed. students.

Sources of Variance	df	SS	MSS	f-value	Significance
Among	2	5525.53	2762.76	51.78	0.01
Within	293	15630.51	53.34		
Overall	295	21156.05			

From the table 4.13, it is observed that the variances among and within the groups are 2762.76 and 53.34 respectively. The F-value is found 51.78 with degree of freedom (df) of 2 and 293. The F-value is found to be significant at 0.01 level of significance as the table value is found to be less than calculated value with stated level of significance and df. Hence the null hypothesis was rejected. As the f-value is found significant it can be said that the means of the three groups i.e. arts, science and commerce differ truly in B. Ed. practice teaching performance. It does not tell us which means differ significantly, but it indicates that at least one mean is

reliably different from some other. To test it, t-test is used which is given in table 4.14.

Table 4.14 : Degree of freedom, t-value, and level of significance for practice teaching (in percentage) for Arts, science and commerce streams of B Ed students.

Groups	df	t-value	Significance
Arts and science	252	10.09	0.01
Arts and commerce	178	5.53	0.01
Science and Commerce	156	1.78	Not Significant

From table 4.14, it is observed that the t-value of 10.09 for the groups of arts and science stream students is found to be significant at 0.01 level of significance with degree of freedom (df) of 252 . So, it can be said that the mean B.Ed. practice teaching performance of science stream students is significantly different from the same of arts stream students and science stream students do truly better than the arts stream students in B.Ed. practice teaching performance.

From table 4.14, it is also observed that the t-value of 5.53 for the groups of as and commerce stream students is found to be significant at 0.01 level of significance with degree of freedom (df) of 178. So, it can be said that the mean B.Ed. practice teaching performance of commerce stream students is significantly different from the same of arts stream students and commerce stream students do truly better than the arts stream students in B.Ed. practice teaching performance.

From the same table 4.14, it is observed that the t-value value of 1.78 for the groups of science and commerce stream students is not found significant. So, it can be said that the means of B.Ed. practice teaching performance of science and commerce stream students do not differ significantly.

III. MAJOR FINDINGS

1. Past achievement of B.Ed. students was found significantly associated with the theory achievement as the mean percentage of marks in theory with the higher past achievement was found significantly greater than that of the students with low past percentage. Hence findings reveal that past achievement which is used as an admission criteria for B.Ed. program is significantly correlated with the theory performance of B.Ed. students.
2. Past achievements of B.Ed. students was found significantly associated with the practice teaching achievement as the mean percentage of marks in theory with the higher past achievement was found significantly greater than that of the students with low past achievement. Hence, findings revealed that practice teaching achievement is significantly

correlated with the theory performance of B.Ed. students.

IV. IMPLICATIONS OF THE STUDY

From the discussion it can be concluded that educational background factors like past – achievement, streams of education and medium of instruction made a significant difference in the overall mean performance of the B.Ed. students and might have some influence on it. The academic performance of B.Ed. students varied from group to group according to the background factors, though the same and equal instruction were provided to all of them.

The findings of the present study can be used mainly in the input and process aspects of the secondary and higher secondary training system. With the help of the findings of the present study the input (admission) criteria for B.Ed. program can be improved. Similarly, the findings can also help to provide better teaching learning, improving the process aspect of B.Ed. training.

V. CONCLUSION

In the present quality concerned society, there is a need to control the quality of any product with the help of strategic interventions at any level i.e. input, process and output. To improve the quality of our future teachers particularly the secondary and higher secondary teachers, teacher training institutions had to implement strategic interventions at different stages of teacher training programs.

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