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PLAN AND PROCEDURE

Educational performance of any student is dependent on many factors. Some factors are inherent in the individual and other factors are outside the control of the individual. Factors that influence the educational performance may be his intelligence, his study habits, his aptitude for the subject and his interest in the subject. The performance may also depend on the standard of the college and standard of the teaching. When a student offers a professional course, his/ her aptitude for the profession also plays an important role in his performance. Hence the B.Ed. performance of the student may be determined by both the aptitude for the teaching profession as well as by the consistent previous academic record, when the B.Ed. students with science methods are studied, their aptitude for teaching as well as their content mastery at their graduation level has to be taken into consideration.

In this study two independent variables B.Sc. marks of science students and teaching aptitude score both of which are likely to influence their B.Ed. performance (dependent variable) of

students with science as their first method will be probed and their effect studied.

RESEARCH DESIGN

Survey and analytical (descriptive) methods of research were found to be appropriate for the present study.

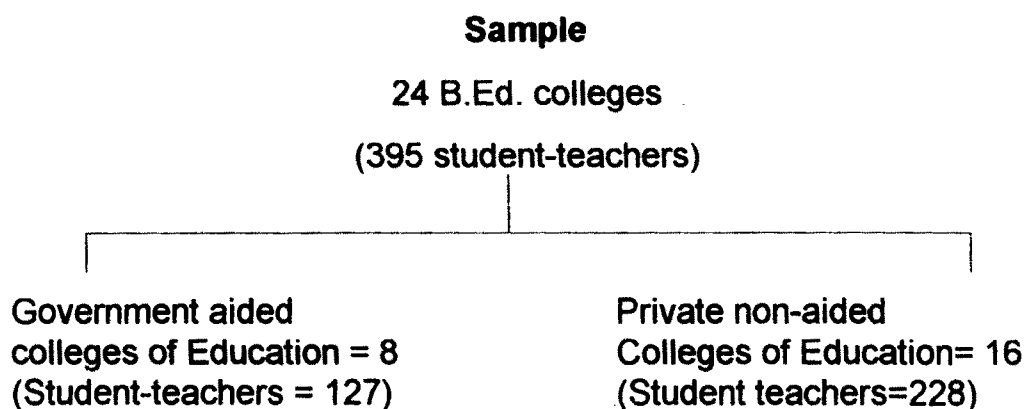
SAMPLE

Selection of Colleges

These are a total of 27 B.Ed. colleges affiliated to the Shivaji University, Kolhapur. Out of these two colleges are special B.A.,B.Ed. integrated course of four years, which is in Marathi medium. In Solapur there is one B.Ed. College, which is of one year academic duration but there is no science method available, so that college was deleted. hence for this research, only taken 24 B.Ed. colleges, those of one year academic duration were Marathi medium was drawn.

All the B.Ed. students having science method as their first method from 8 aided and 16 non-aided B.Ed. colleges affiliated to Shivaji University, Kolhapur were taken for this study. A total of

395 B.Ed. students who had science method as their first method were selected for this study.



TOOLS USED FOR THE STUDY

For finding the teaching aptitude of B.Ed. students with science method, the following tools were used :

Teaching Aptitude Test (TAT)

Test construction and standardisation of TAT was done by Dr. Jai Prakash and Dr. R. P. Srivastava and the test was prepared by Dr. S.D. Kapoor.

Description of the Tool

It is a standardized test. This test is meant for measuring the aptitude towards teaching profession. The scale has 10 sub-tests and a total of 150 items. Each sub-test contain 15 items. The test has the following areas belonging to each of the ten sub-tests :

- 1) Co-operative Attitude
- 2) Kindliness
- 3) Patience
- 4) Wide Interest
- 5) Fairness
- 6) Moral Character
- 7) Discipline
- 8) Optimism
- 9) Scholarly Test
- 10) Enthusiasm

This tool is in Hindi. As the B.Ed. students are all graduates, familiar with Hindi, the tool was administered in Hindi itself. However, after pilot testing, the difficult terms were identified and their Marathi version was given to the students before administering the test.

Weightage to Items

In this test, the weights of +3, +2 and +1 were assigned to the right responses of 'HA', 'A' and 'I' or 'HD', 'D' and 'I' respectively. In the same way, -3, -2 and -1 were given to the wrong responses of 'HA', 'A' and 'I' or 'HD', 'D' and 'I' respectively. After this, a scoring formula-right minus wrong, $S = R - W$, was adopted to obtain the correct scores. The coefficient of correlation between the raw-

scores of the test and the rated-scores was found to be +0.579 by Product-Moment Method and this justified the given weightages to a greater extent.

Scoring the Test

The test has two sets of scoring keys : one, for the Right (R) and the other, for wrong (W) score. Accordingly, the weights of +3, +2 and +1 are given to their right responses of HA, A and I or HD, and I respectively. Whichever is correct as is visible through the blank circles of the Right keys. Similarly, the weights of -3, -2 and -1 are assigned to the wrong answers of HA, A and I or HD, D and I, whichever is visible through the blank circles of wrong keys. Thus the scoring keys give two sets of scores separately, i.e. Right and Wrong scores. The correct score is obtained by subtracting the wrong scores from the Right score (R-W) and this remainder is an individual's raw score. Finally consult the desired Norm Table and converting the raw score into standard score or percentile rank.

B.Sc. Final Year Examination Marks

The B.Sc. final year examination marks of the sample were collected from the students and verified from office records.

B.Ed. Examination Marks

B.Ed. examination marks of 395 B.Ed. students who had science as their first method were collected after their final examination results were declared from the office records.

PROCEDURE

To collect data from all the B.Ed. students of Shivaji University, Kolhapur (1998-99 batches) with science as their first method, all the 24 B.Ed. colleges conducting the one-year B.Ed. course had to be visited and the data regarding their teaching aptitude and their B.Sc. academic achievement were collected after obtaining due to permission from the Principals of the B.Ed. colleges.

The data was collected on different days from the 24 colleges covering four districts of Maharashtra : Kolhapur, Sangli, Satara and Solapur from 16th of December, 1998 to 24th of February, 1999.

For collecting data for teaching aptitude, the standardised tool 'Teaching Aptitude Test' by S.D. Kapoor was used and as per the instructions in the manual, the tool was administered, data collected and interpreted.

The B.Sc. final year examination marks of the sample were collected from the students and verified from office records.

The data regarding B.Ed. performance was obtained from office records.

METHOD OF ANALYSIS OF DATA

The raw scores obtained by administering the 'Teaching Aptitude Test' was classified as per the range given in Table No.3 of the manual of 'Teaching Aptitude Test' and the standard scores and Grades were collected and interpreted and the standard scores were further used for statistical analysis alongwith other data (B.Sc. marks and B.Ed. marks) collected for this research in pursuance of the objectives of this study such as : Mean, Standard Deviation (S.D.) and 'X²' square (Chi-square).

The data obtained and analysed is presented in CHAPTER-IV, in tabular form, interpreted and results drawn.