



PREDICTION OF STUDENTS' ACADEMIC ACHIEVEMENT AT HIGHER SECONDARY LEVEL ON THE BASIS OF SECONDARY LEVEL ACADEMIC ACHIEVEMENT

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ABSTRACT

The main objective of the present research was to construct regression equation for predicting the academic achievement of the standard 12 students based on their 10th standard's result. Following the Documentary Survey method the researcher had chosen 128090 students of standard 12 based on their gender, medium of study and stream and had constructed eight regression equations following the 10th standard results of the same. Derived regressions equations are as following, (1).' $X= 1.41Y-24.02$ ', (2).' $X=1.14Y+45.06$ ',(3).' $X=0.16Y+38.86$ ',(4).' $X=0.2Y+41.69$ ',(5).' $X=0.61Y+14.6$ ', (6).' $X=0.64Y+11.49$ ', (7).' $X=0.84Y-1.44$ ', (8).' $X=0.97Y-13.76$ '. SPSS 17.0 was used for the analysis of available data.

1.0 INTRODUCTION

There prevails the teaching pattern of 10+2+3 in Gujarat state. This pattern includes standard 9 and 10 into secondary level and standard 11 and 12 into higher secondary. Under this pattern, the examinations of standard 10 and 12 are conducted by *Gujarat Secondary and Higher Secondary Education Board*.

The decision regarding the selection between science stream or general stream is done after the result of standard 10. The branches like medicine, engineering or science graduation are opted after the result of standard 12 of science stream while the branches like arts, commerce graduation etc are opted after the result of standard 12 of general stream.

The students don't get the reliable guidance regarding what their academic performance would be whether they select the science stream or general stream.

The present research will help in predicting their academic performance whether they opt general or science stream based on their 10th standard's result. The result of the present research will be helpful in providing guidance and counselling the students.

2.0 OBJECTIVES OF THE STUDY

The objectives of the present study are as under.

1. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the boy students who study in 12th standard general stream of Gujarati medium.
2. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the boy students who study in 12th standard general stream of Gujarati medium.
3. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the girl students who study in 12th standard general stream of Gujarati medium.
4. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the boy students who study in 12th standard general stream of English medium.
5. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the girl students who study in 12th standard general stream of English medium.
6. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the boy students who study in 12th standard science stream of Gujarati medium.
7. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the girl students who study in 12th standard science stream of Gujarati medium.

8. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the boy students who study in 12th standard science stream of English medium.
9. To construct regression equation for predicting the marks of standard 12 on the basis of the marks obtained in standard 10 of the girl students who study in 12th standard science stream of English medium.

3.0 OPERATIONAL DEFINITIONS

In the present research some of the words were defined operationally in the following way.

Academic Achievement:- The result of exam in percentage, conducted by the secondary and higher secondary education board.

Secondary Level Academic Achievement:- The result of standard 10 exam in percentage, conducted by the secondary and higher secondary education board.

Higher Secondary Level Academic Achievement:- The result of standard 10 exam in percentage, conducted by the secondary and higher secondary education board.

4.0 RESEARCH METHODOLOGY

Documentary Survey Method was used as research method in the present study.

5.0 UNIVERSE AND SAMPLE

The boy students and girl students of standard 12 from Gujarati and English medium from state of Gujarat were included as a sample in the present study.

The entire universe was selected as a sample in the present study. The sample chosen for the present study is presented in the table no. 1

Table-1

The number of students of standard 12 general stream and standard 12 science stream

| | General Stream | | | Science Stream | | | Total |
|-------|-----------------|----------------|-------|-----------------|----------------|-------|--------|
| | Gujarati Medium | English Medium | Total | Gujarati Medium | English Medium | Total | |
| Boys | 38492 | 1540 | 40032 | 36848 | 5346 | 42194 | 82226 |
| Girls | 24410 | 1093 | 25503 | 17029 | 3332 | 20361 | 45864 |
| Total | 62902 | 2633 | 65535 | 53877 | 8678 | 62555 | 128090 |

According the table no 1 128090 students were selected as sample in the present study. There were 65535 students from general stream out of which the number of boys was 38492 and the number of girls was 24410. The number of boys from English medium was 1540 and the number of girls was 1093. In the same way the total number of students from science stream was 62555 out of which Gujarati medium students were 36848 and Gujarati medium girls were 17029. The number of English medium science stream boys was 5346 and the number of English medium science stream girls was 3332.

7.0 DATA COLLECTION AND ANALYSIS

In the present study the result, in percentage, of Gujarati and English medium boy and girl students of standard 12 general and science stream exam- conducted by the secondary and higher secondary education board- were collected. The same students' results in percentage of the standard 10 exam conducted by the secondary and higher secondary education board were collected.

The collected information of boys and girls of Gujarati and English medium from general and science stream is presented in the Table-2

5. In the present research the equation ' $X= 0.61Y+14.6$ ' was derived for the predicted score of science stream Gujarati medium boys of standard 12 where **X**= predicted score of standard 12 in percentage and **Y**= percentage obtained in standard 10.

With the help of this equation, one can predict any student's result of standard 12, in percentage based on the result of standard 10.

6. In the present research the equation ' $X= 0.64Y+11.49$ ' was derived for the predicted score of science stream Gujarati medium girls of standard 12 where **X**= predicted score of standard 12 in percentage and **Y**= percentage obtained in standard 10.

With the help of this equation, one can predict any student's result of standard 12, in percentage based on the result of standard 10.

7. In the present research the equation ' $X= 0.84Y-1.44$ ' was derived for the predicted score of science stream English medium boys of standard 12 where **X**= predicted score of standard 12 in percentage and **Y**= percentage obtained in standard 10.

With the help of this equation, one can predict any student's result of standard 12, in percentage based on the result of standard 10.

8. In the present research the equation ' $X= 0.97Y-13.76$ ' was derived for the predicted score of science stream English medium girls of standard 12 where **X**= predicted score of standard 12 in percentage and **Y**= percentage obtained in standard 10.

With the help of this equation, one can predict any student's result of standard 12, in percentage based on the result of standard 10.

9.0 REFERENCES

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