A STUDY OF TEACHER PREDICTION AND STUDENT PERFORMANCE

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Introduction

It is generally assumed that the teacher is a good Predictor of the success or failure of his students in the examination. A scientific enquiry into this problem would be of interest. The question is whether the teacher by virtue of his experience and close contact with the student would be a good judge or good predictor? And if so, how accurate will his Predictions be?

Aim & Method

The aim of the investigation was to study whether there is any relationship between the 'teacher-Prediction' and the actual performance of the student at the S.S.L.C. examination.

The final year (VI Form) students of the Banumaiah's High School were taken as subjects for the study. They were altogether 157 boys studying in the four sections, 41 in Section A, 37 in Section B, 33 in Section C and 46 in Section D respectively. The optional subjects for the sections, A, B & C were Science and Mathematics. In the section D, 28 students had History and Geography and the remaining 17 had Accountancy as their optional subjects. The other subjects, namely, English, Kannada, Elementary Physics, Chemistry, 'Biology, Elementary Mathematics, History, Civics and Geography were required by all the students.

Each student was rated according to grades A, B, C, D or E in the respective subjects by the teacher who handled those subjects. These ratings were done in the first half of October 1960 independently by each teacher in the respective subjects. The performance of the students in the first terminal examination, September 1960, served as a basis for the ratings; but the teachers also depended upon their own impressions about the student throughout the high school course. The grade rating was as follows:

Ratings	Expectations in the S.S.L.C. Examination
A	Would get 70% and above
B	Would get 60% to 69%
C	Would get 50% to 59%
D	Would just pass; 35 to 49%
E	Sure failures; below 34%

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The final ratings were made by the Head Master. Each student was finally graded into one of the categories, A, B, C, D? or E by the Head Master in the last week of October 1960. The subject ratings by the teachers, as well as Head Master's own impressions about the student served as the basis. So, here was a 'Prediction' of success or failure of each student in the forthcoming Public Examination in March 1961.

Results & Discussion

The results of the S.S.L.C. Public Examination were published in June 1961. Out of 157 students only 150 took the examination. Table I gives the picture of the expected performance and the actual performance of the students.

Table 1 *showing the expected and actual performance of Students*

Teacher's Ratings	No. of students	Expected percentages	Obtained average percentage	Lowest percentage	Highest percentage	Range
A	5	70% & above	73.0%	68.9	75.4	6.5
B	10	60% to 69%	63.7%	53.6	75.3	21.7
C	18	50% to 59%	52.0%	42.4	65. S	23.4
D	53	35% to 49%	42.2%	20.7	61.7	41.0
D?	16	June around 35%	40.2%	27.0	51.1	24.1
E	48	Below 34%	32.0%	11.3	50,4	39.1
Total	150					

The above table gives a picture of comparison between the expectations and achievements of the students. There seems to be a close positive relationship between the two. In every category A, B, C, D D? and *E,* the achievement of the students is in line with the expectations. This means that the ratings by the teachers as well as the final ratings by the Head Master have been done with fair objectivity. The coefficient of correlation by product Moment method is 0.71 (P.E.0.33)

Towards the right half of the table is presented the highest and lowest percentages obtained under every rating. This has something to tell about the accuracy of Prediction also The range being small in categories A ; 6.5, B ; 21.7 and C ; **23.4,** shows that the Prediction was good in these cases, The range is fairly big in cases D ; **41.0,** D?; 24.1 and E; 39.1, indicating a fall in accuracy of ratings.

Table 2, aims at a further analysis of the results, showing the expected and observed performances of the students. The percentage of passes and failures is also indicated.

Table 2 *showing the expected and observed performances of students*

Grades	Total No. of cases	Proportion of cases	Actual No. of cases	No. of first classes	No. of EC&PS only	No. of failures	% of failures	%of passes
A	5	3.33	5	5	—	—	—	Cent %
B	10	6.67	10	7	3	—	—	Cent %
C	18	12.00	18	2	16	—		Cent %
D	53	35.33	25	3	22	28	52.84	47.16
D?	16	10.67	7	—	7	9	56.25	43.75
E	48	32.00	10	—	10	38	79.17	20.83
	150	100.00	75	17	58	75		

Regarding the A, B and C cases there is cent per cent agreement, between the expectation and achievement. However, one could see that these cases form only 22% of the total population. A closer observation of this small group might have enabled the teachers to rate their work with greater accuracy.

With respect to the groups D and D ? the accuracy of ratings is reduced considerably. It is only 47% and 44% respectively. On the other hand, in the category E, the Prediction, namely failure is considerably well done reflected in 79.17% of failures.

In general one could infer that Prediction becomes relatively precise with reference to the extreme grades and more so with the grades A, B & C. The middle categories D and D ? offer difficulty in being rated. This necessitates a further analysis of D and D ? cases.

Table 3 *showing the number of D and D ? cases and E cases failing in one paper, two papers, etc.*

No. of failures in	D cases & D ? cases	E cases	Total
1 paper	11	5	16
2 papers	8	6	14
3 papers	9	6	15
4 papers	4	4	8
5 papers	3	11	14
6 papers	2	4	6
All 7 papers	0	2	2
Total	37	38	75

28 out of 37 of the D and D ? cases fail in one, two or three subjects whereas 21 out of 38 of the E cases fail in 4 or more subjects. A considerable number of D cases

ie 10 fail in one paper, still less in two papers, This means that the D cases are not wholly bad and thus if some extra drilling is done in these few subjects, something could be done to push up their results. The D? cases form a very small number. Gn the other hand an opposite trend could be seen from E cases. A number of them fail in many papers. If some help could be given to those who fail in one or two papers, it may improve the results. But the majority of them appear to be very poor. It would be interesting to study such cases individually and find out where and why the deficiency in achievement occurs.

To study the extent of relationship between the final ratings and the actual performance of the students in the examination, correlation was worked out, using the Product-moment method. With the same presumptions for each category as given in Table 1, frequencies were drawn up and the product-moment correlation was found. It come out to be 0.71 (=0.7091). This is a fairly high positive correlation indicating the close relationship between the ratings and the performance.

$$7 = (0.71+0.03)$$

P.E.=0.03 7 Significant

Some teachers are of the opinion that students bright in mathematics, will be overall bright. To study this, correlation was worked out on the same lines between the ratings of mathematics teacher and their performance in the final examination. But it came out to be 0.28 (=0.282), which would indicate that the ratings done by the mathematics teacher do not very much contribute to the total performance of the students. It could possibly be that the students performance in mathematics may not have close relation with their overall performance.

P.E. = 0.054

$7 = (0.28 \pm 0.05)$ 7 not significant

The consistency of performance of the students in any two examinations is another interesting thing to study. In the present study the performance in terms of marks obtained, by the same students, in the fifth form annual examination, and at the S.S L.C. examination were correlated. And this correlation came out to be 0.84. (=0.8377). This indicates a high consistency of performance by the students.

7=0.837 or 0.84 The Y being statistically significant

P.E. =0.02 $7 = (0.84 \pm 0.02)$

Summary

The assumption that the teacher is a good predictor of the success or failure of his student has been put to test in the study. Analysis of results showed a statistically significant positive relationship between "teacher prediction" and "student performance".