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A Performance relation between the Faculty Development Programme and the Student's Results in the Annual exams

Naga Padmini Rayana

Lecturer in Mathematics, New Horizon College,
Kasturinagar, Bangalore. India.

Abstract

This is a statistical approach on the Faculty Development Programmes (FDP) given by the external experts versus the individual faculty's performance in the subject taught by the corresponding faculties. Currently the performance of the faculty is judged by giving some marks or grade after he or she attends the particular professional training and separately the students pass percentage in the subject taught by the particular lecturer. An attempt is made to find out the correlation between these two performances. It has been found a low degree positive correlation amongst these individual performances which can be attributed to a healthy outcome under the giver circumstance and scenario. This was done through a formal survey based on collecting the data from both the FDP coordinators and the student's pass percentage form the same academic institution. Data analysis was done using Spearman rank repeated method. The outcome of this research can serve as a reference for any academic institution or university for its training improvement needs & plans.

Keywords: Faculty, Development, Programme, Training, Academic, Correlation, Performance, Subject, Ranks, Students & Spearman.

INTRODUCTION

For any academic institution the growth or popularity directly proportional to its students pass-percentage. There are other factors which includes the student's placement record, university rank holders, research activities, quality standards,

facilities, management background, faculty profile, marketing etc. However the institution may turn back into a notorious one if the student's discipline and behaviour comes to substandard level. Considering all these aspects the most significant factor for any college or institution's progress is mainly depends upon the pass percentage & rankings obtained by their students. In order to achieve this, the students should be taught properly, trained in correct way and guided in the right direction. If this has to happen the faculty should be equipped with all the necessary inputs. It includes faculty's own subject competency, teaching methodologies, teaching aids, management cooperation and the approach in teaching to the new generation youth.

Nowadays it is a mandatory aspect of the college management that they have to provide professional training to the faculty on a regular basis. This is often termed as Faculty Development Programme (FDP) and these programmes will be conducted by external professionals. These programmes typically run for 2 – 5 days on a fulltime basis covering various aspects like psychological challenges of new generation learners, teaching of literature at the higher level, personality development, preparations of evaluation tools, questionnaires checklist, Rubrics, classroom management skills etc.

PARAMETERS CONSIDERED FOR THE SURVEY

Since not many colleges offer periodic faculty development programs a sample study done on the colleges itself for choosing a right college to do this survey. Considering the year of incorporation, strength of the students, strength of the faculty and the courses offered by the college, we have selected few colleges to do the survey. However, the detailed study had been undertaken with a reputed institution which undertakes regular faculty development programs inviting professional to carry out the same.

Here an attempt is made to find the correlation between the performances of the faculty from attending the training program and their individual subject results considering the pass percentage of the students in that subject. The data is analysed and suitable ranking are assigned for mathematical calculations.

SCOPE OF THE STUDY

Since the faculty development programme is becoming a mandatory often academic institutions felt this as a compulsory norm rather than a privilege and requirement. They were not really carrying on backward analysis on the implementation of this program except taking some feedback from the faculties without definite consideration of their subject wise performance. Hence an attempt is made to identify whether any statistical correlation exists between the faculty development programme

and the students' pass percentage. Also to list out the areas where an immediate intervention required improving the faculties performance which directly enhances the student's and institution's progress as a whole.

SAMPLING DESIGN & DATA COLLECTION

The data is collected mainly from one academic institution. Hence the collection of data is straight forward. The survey is done for 10 lecturers and the 10 subjects they taught to the students and its results. The study is done in a reputed academic private institution in Karnataka, India.

TECHNIQUES APPLIED FOR THE STUDY

Commonly used techniques for examining the relationship between two quantitative variables are Correlation and Linear regression. Correlation quantifies the strength of the linear relation between a pair of variable where as regression expresses the relationship in the form of an equation. The Spearman's Rank Repeated Method is used to discover the strength of a link between two sets of data and measures the direction of association between two ranked variables. In this case the two sets of data are the performance of the individual faculty from the FDP program and his / her subject wise student pass percentage.

LIMITATIONS & FURTHER SCOPE OF THE STUDY

1. The study is limited to only one private academic institution in Karnataka, India, Further it can be extended to collect more data & survey from other institutions.
2. The study & survey can be further enhanced by collecting more data by taking more lecturers / faculty attending these programs.
3. Also the study can be extended to different states in India.

DATA ANALYSIS & CALACULATIONS

Table 1.1: Grades assigned to the lecturers on the FDP test results conducted for 30 marks

Marks	Grade
26 - 30	A
21 - 25	B
16 - 20	C
10 - 16	D

Table 1.2: Lecture Scoring based on FDP and assigned corresponding ranks

Lecturer	Marks	Grade	Rank - R1
L-1	26	A	2
L-2	15	D	9
L-3	17	C	8
L-4	25	B	3
L-5	22	B	4
L-6	19	C	7
L-7	13	D	10
L-8	21	B	5
L-9	20	C	6
L-10	28	A	1

Table 1.3: Students result in the subject taught by the corresponding lecturer

Lecturer	Subject result %	Rank - R2
L-1	92	1
L-2	73	10
L-3	81	8
L-4	85	6.5
L-5	88	4
L-6	75	9
L-7	88	4
L-8	90	2
L-9	88	4
L-10	85	6.5

Table 1.4: FDP rank vs. Subject result ranks by the corresponding lecturer

Lecturer	**FDP rank**	**Subject rank**
	R1	**R2**
L-1	2	1
L-2	9	10
L-3	8	8
L-4	3	6.5
L-5	4	4
L-6	7	9
L-7	10	4
L-8	5	2
L-9	6	4
L-10	1	6.5

Table 1.5: Deviation calaculation

Lecturer	**FDP rank**	**Sub rank**	**Deviation**	
	R1	**R2**	**D = R1 - R2**	**D^2**
L-1	2	1	1	1
L-2	9	10	-1	1
L-3	8	8	0	0
L-4	3	6.5	-3.5	12.25
L-5	4	4	0	0
L-6	7	9	-2	4
L-7	10	4	6	36
L-8	5	2	3	9
L-9	6	4	2	4
L-10	1	6.5	-5.5	30.25

Calculation based on Spearman Rank Repeated Method

$$R = 1 - \frac{6[\Sigma d^2 + \frac{1}{12}(m^3 - m) + \frac{1}{12}(m^3 - m)]}{n^3 - n}$$

$$= 1 - \frac{6[97.5 + \frac{1}{12}(3^3 - 3) + \frac{1}{12}(2^3 - 2)]}{10^3 - 10}$$

$$= 1 - \frac{6[97.5 + \frac{1}{12}(27 - 3) + \frac{1}{12}(8 - 2)]}{1000 - 10}$$

$$= 1 - \frac{6[97.5 + \frac{1}{12}(24) + \frac{1}{12}(6)]}{990}$$

$$= 1 - \frac{6[97.5 + \frac{1}{12}(24) + \frac{1}{12}(6)]}{990}$$

$$= 1 - \frac{6[97.5 + 2 + 0.5]}{990}$$

$$= 1 - \frac{6[100]}{990}$$

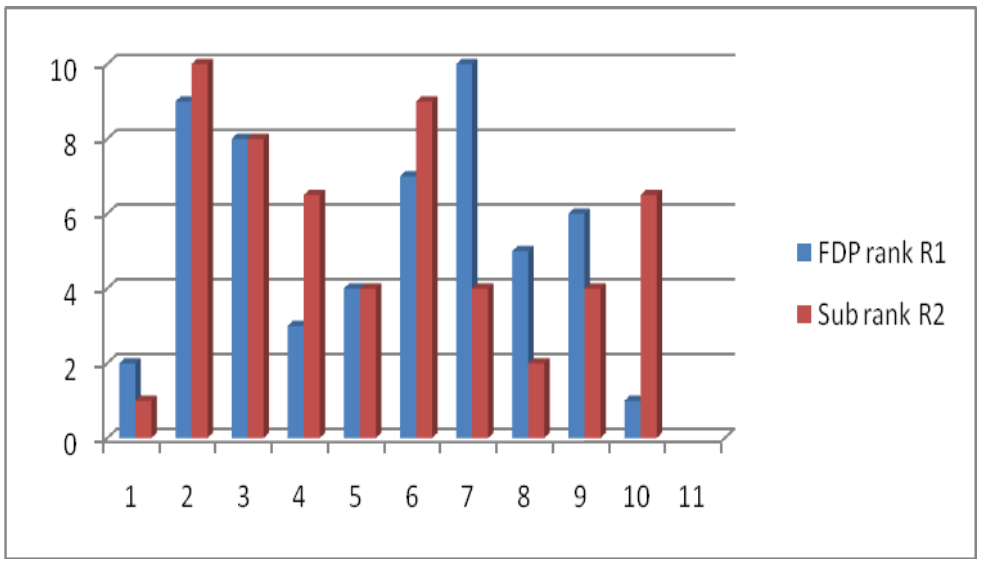
$$= 1 - \frac{600}{990}$$

$$= 1 - 0.60607$$

$$= 0.39394$$

Comment: Low Degree Positive correlation

GRAPHICAL REPRESENTATION OF THE DATA



CONCLUSION

From the above survey and the correlation method we observed a positive low degree correlation. This shows that there is a little positive impact on the Faculty who undergo this faculty development programme, i.e., there may be little improvement on the subject wise performance and ultimately the students' pass percentage is improved. However this may not exist, if the students are not cooperative and the lecturers unwilling to implement the training in real life situations, which is very unlikely. Since the study is done in one college and limited n.of lecturers it is difficult to draw a conclusion. But the statistical relation reveals that more survey done the degree of correlation may slip further. Hence it is high-time one has to really look into this aspect very seriously from the college management, University authorities and FDP trainers. It would be interesting and also throws more light if we collect the data from the FDP trainers as well about their own performance on the academic institutions. This will bring more clarity to the topics they cover and the methodology to be followed. Definitely any individual self learning is always welcome and any training programme is added, but one has to see envisaged goals for the instituin who actually spend time & money on these programs.

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AUTHOR'S PROFILE

Mrs Naga Padmini Rayana is a Mathematics Lecturer in New Horizon College, Bangalore, India. She possesses a Master's Degrees in Mathematics from Andhra University, Visakhapatnam and M.Phil from Madurai Kamaraj University. Before her role in New Horizon, R N Padmini was worked as a of Mathematics lecturer at Sambram PU College, Bangalore, KBN Degree & PG College, Vijayawada and MSRS Siddhartha Degree & PG College, Visakhapatnam. Also she ran a Mathematics coaching centre for over 8 years.

Email: padmini.rn@gmail.com