



MEASURING THE EFFECTIVENESS OF FACULTY DEVELOPMENT PROGRAMME IN A MANAGEMENT INSTITUTE: A PRE AND POST ANALYSIS

Dr. Renu Sharma* Dr. Monika Kulshreshtha**

* Associate Professor, Department of Management, Institute of Innovation in Technology & Management, Delhi.

**Professor, Department of Management Institute of Innovation in Technology & Management, New Delhi.

Abstract

This paper presents the results of an empirical study conducted with the objective of determining the effectiveness of the faculty development programme on Research Methods organized by a management institute for one week. The knowledge of the participants was assessed on various parameters of research methodology before and after the commencement of faculty development programme. For the purpose of this study both primary and secondary data have been collected. A structured questionnaire was prepared to obtain the views of the target group of teachers participated in faculty development programme in a higher education institute. Non probability sampling technique has been used for data collection and the responses were collected on a five point likert scale. Paired t-test has been applied on pre and post Faculty Development Programme mean scores. The results of the study reveal that there is a significant improvement in the knowledge of the participants on the various concepts of Research Methodology.

Keywords: Faculty Development Programme, Higher Education, Improving Teaching Skills.

Introduction

The pillar or the foundation stone of any teaching institute is its faculty members. The role of the teachers has transformed from what it was to what it is now but the role of a teacher in teaching learning cannot be overlooked. Faculty members in the higher education face the immense pressure to update themselves with the changing environment there is a demand to be more creative and effective. The pressure has been derived from the redundant syllabus but the expectation is to teach contemporary topic so making a balance between updating the knowledge of the students as well as making them prepare for their examinations. The numerous roles faculty play require skills in research, teaching, counseling and motivating the students. For this the faculty members are expected: understand students, learn new technologies, update themselves with the changing business, economic and social changes in the environment.

Ortlieb, Biddix, and Doepker (2010) have argued that support for faculty should include developing faculty communities that 1) foster positive relationships with other faculty members, 2) encourage partnerships for research, 3) provide a network of support, 4) encourage critical reflection, and 5) offer monthly support groups to help faculty members develop into their roles. On going professional growth is the key through which the faculties today can face a growing array of changing roles and responsibilities.

Need of the hour is to enrich the intellectual capital and to focus on linking classroom teaching with research and new knowledge. As higher education occupies the top position in the educational hierarchy, by virtue of its location in the hierarchy, it has a responsibility and makes a contribution to the lower levels of education. This can be done through the research work done by the faculty members, the research papers and other research work done by them will be a learning opportunities for others. This was the reason why the research work done by the faculty was the basis of their appointment as well as promotions. The existing mandatory research clause led the standard of research work in shamble stage. This is the very reason to update the faculty members with the knowledge of research methodology for behavioral sciences. It is important to impart knowledge pertaining to scientific inquiry and to integrate qualitative and quantitative approaches in research.

Professional development of faculty in the higher education is becoming increasingly important as there is a shift in student demographics, pedagogy and classroom technology usage mean that faculty require a new generation of training tools. Research Methods and their latest tools and techniques can only be learned by hands on experience and class room teaching. Thus Faculty development programs is the best method through which faculty can be updated on these topics. for achieving better standards of teaching. This paper provides information on the assessment faculty development program that was conducted for the management faculties on Research methodology by the external experts in a management institute in New Delhi. It was a one week program on the various aspects of research and the use of latest tools and techniques in research.



Purpose of the study

The purpose of this empirical study is to assess the effectiveness of a faculty development programme conducted on Research Methodology by a higher education institute. The study encompasses an analysis of the effectiveness of various subtopics of Research Methodology discussed in the faculty development programme. The study is conducted with the following objectives:

1. To determine the overall effectiveness of the Faculty Development Programme in a higher education institute.
2. To assess the effectiveness of various sessions conducted during a faculty development programme.
3. To offer various suggestions to improve the effectiveness of the Faculty Development Programme.

Review of Literature

According to Kala and Chauby (2015), higher education has undergone a great deal of changes in terms of growing diversity of students, pedagogical advances, changes in expectations about the quality and assessment of education, rapid changes in information learning, corporate style management, nature and value of assessment and paradigm about teaching and learning. The basic model of teaching changed from teaching as transmission of content to teaching as the facilitation of learning and faculty development initiatives have emerged in response to these challenges. Faculty development programmes are considered as a tool to foster knowledge and upgrade the skills of teachers engaged in higher education. It is essential for personal development, to improve classroom teaching and administration. Nandan, Nandan & Ghosh (2010) defined Faculty Development programmes as all of such activities as seminars, conferences and individual counseling carried out in a certain discipline in instructional, personal and institutional areas and fields by a higher education institution for the instructor to do his duties." Kamel (2016) talked about the role of a faculty development programme in improving teaching skills in higher education. FDPs have proven effective in developing faculty skills and educational leadership. Indeed, today, faculty development constitutes a strategic lever for institutional excellence and quality, and essentially important means for advancing forward institutional readiness to bring in the desired change in response to the ever-growing complex demands facing universities and colleges. Estrada (2008) conducted a study to determine the impact of in-house training programmes on teaching effectiveness. The study was conducted in the Philippines with a sample size of 53 faculty members who have attended an internal training programme in 2008. A questionnaire has been used as an instrument for data collection. The results of the study show that the faculty members greatly appreciated the objectives, course content, methodology, schedule and duration, training material and resource persons, however, there was no significant correlation found between the impact of faculty development programmes on teaching effectiveness. A report published by the Illinois Education Research Council on the impact of faculty development on teacher self-efficacy, skills and perspectives on two groups – intervention group (who participated in FDP) and control group (who did not participate in FDP). There were 28 respondents in both groups. A questionnaire has been used as an instrument for data collection and the responses are obtained on a Likert scale. The analysis of assessment of teaching competencies highlighted a statistically significant difference between pre and post scores and between the control and intervention groups. This indicates that participating in a faculty development programme influences the perception of teaching skills. Teaching perspectives are how faculty members plan and present their subject matter and how other learning activities are conducted for the students. The study indicates no significant differences between group and pre- and post-scores on teaching perspective, meaning that the faculty development programme did not influence the teaching perspective of the participants.

Methods

The Paired Samples t-test compares the means of two variables. It computes the difference between the two means and tests to see if the average difference is statistically significant. The results for the pre-test were compared with the results for the post-test. The participants filled out the 22-item questionnaire before and after the Faculty Development Programme with the same set of questions concerning awareness of research paper writing, selection of topic, formulating research hypothesis, writing review of literature, formulating research design, selecting sampling technique, adequacy of sample size, data analysis and interpretation, drawing conclusions and writing bibliography. Only participants with both pre and post tests were included in the analysis (N=29). Reliability of the entire questionnaire was tested with the help of the test of Cronbach's Alpha. The value of Cronbach's alpha indicated that the 20 statements indicated an alpha value of 0.861, which is a good value.

Data collection

The participants filled out the 22-item questionnaire before and after the Faculty Development Programme with the same set of questions to assess their awareness about writing a research paper, selecting a topic for research, writing a research hypothesis, writing review of literature, referencing in review of literature, selecting appropriate research design, different types of data, various sampling techniques, appropriate sample size, scaling techniques, designing of questionnaire, data analysis techniques, drawing inferences and conclusion from data interpretation and bibliography. All the responses were measured on a five-point Likert scale.

Results and Discussion

The faculty development programme on Research Methodology was designed on various subtopics – selecting a topic for research, writing hypothesis, writing review of literature, selecting appropriate research design, various sampling techniques, selecting appropriate sample size, scaling techniques, questionnaire design, data analysis techniques and writing bibliography.

To assess the effectiveness of faculty development programme on Research Methodology, the awareness of the respondents were checked on the same parameters through questionnaire before and after the programme. Paired t-test was used for data analysis.

The Null Hypothesis in this regard was formulated as Ho: There is no significant difference in the awareness of participants due to faculty development programme.

	Paired Differences				t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower				Upper
Post_sum - Pre_sum	18.828	8.872	1.648	15.453	22.202	11.428	28	.000

From the paired t-test (table 1) it is observed that null hypothesis is rejected since $p < .05$ ($p = .000$). There is a strong evidence that ($t = 11.428$, $p = .000$) that the faculty development programme has improved the awareness level of the participants in Research Methodology. Since the difference in mean score before and after faculty development programme is statistically significant. In 1997, Reid et al. reviewed several studies published between 1980 and 1996 and concluded that faculty development fellowships, workshops, and seminars yielded positive outcomes.

Further analysis was done to find out the outcome of each session on the various sub topics of research methodology and paired t test was applied for each.

Table 2: Perceived Learning of Teachers In Different Sessions of FDP

Sr. No	Subtopics of FDP	t value	p value
1.	selecting a topic for research	5.1923	0.0000
2.	writing a research hypothesis	3.7667	.00078
3.	writing review of literature	2.5311	.01726
4.	referencing in review of literature	5.0373	.00000
5.	selecting appropriate research design	5.5884	.00001
6.	various sampling techniques	3.9313	.00050
7.	appropriate sample size	6.8348	.00001
8.	scaling techniques	6.1892	.00001
9.	Questionnaire Design	4.5849	.00004
10.	data analysis techniques	5.3851	.00001
11.	drawing inferences and conclusion	4.1598	.00002
12.	Bibliography	2.4568	.02047

From the results (table 2) of the paired t-test it is observed that there is a significant difference (t value = 5.1923, $p = .0000$) between the mean values of pre and post FDP responses on selecting a topic for research. On the topic writing a research hypothesis, the mean scores of pre and post FDP are found to be statistically different ($t=3.7667$, $p=.00078$). The respondents were found to be statistically different when compared pre and post FDP scores on writing literature review and referencing in literature review through paired t-test.

Salzberger, Sarstedt, and Diamantopoulos (2016) in their study have mentioned that over the last decades, the discipline has witnessed a wide array of different measurement-related discussions, ranging from general measurement paradigms. Though our analysis we can conclude that the mean scores on selecting appropriate research design and selecting various sampling technique ($t= 2.5311$, $p= .01726$ and $t =3.9313$, $p = .00050$ respectively) are statistically different.. It is observed from the



table that the mean of the responses are statistically different on selecting appropriate sample size and scaling technique with $t = 6.8348$, $p = .00001$ and $t = 6.1892$, $p = .00001$ respectively. The mean scores of respondents are statistically different on questionnaire design and data analysis techniques with $t = 4.5849$, $p = .00004$ and $t = 5.3851$, $p = .00001$ respectively. It is also observed that mean values are statistically different on drawing inferences and conclusion and bibliography with the $t = 4.1598$, $p = .00002$ and $t = 2.4568$, $p = .02047$ respectively.

Since the t value on all the topics of faculty development programme is significantly different when compared the pre and post FDP scores, it can be concluded that there is an improvement in the knowledge of the respondents on various parts of research methodology. Hamilton & Brown (2003) also suggest in their study that when it comes to contribution of skills of faculty members or aids in their professional advancement, faculty development may include a remarkably wide array of activities.

Since the t value on all the topics of faculty development programme is significantly different when compared the pre and post FDP scores, it can be concluded that there is an improvement in the knowledge of the respondents on various parts of research methodology.

Conclusion

Evaluation of effectiveness of a faculty development programme is essential as it provides a feedback of learning of the respondents and inputs to design faculty development programme in future. Almost all the institutes engaged in higher education are conducting faculty development programme for knowledge and skill upgradation of the faculty and their personal growth. However it is important to assess the effectiveness of faculty development programmes as they require resources, money, efforts and time. This study shows that the one week faculty development programme on Research Methodology has been effective as there is a significant difference in the mean scores of the respondents before and after the commencement of FDP. This study is only restricted to the perceived learning of the participants, which is just one level of the programme outcome evaluation described by Kirkpatrick, the other three levels of programme outcomes – reactions which focuses on the participants' satisfaction with the programme (level 1), behavioural changes (level 3) and results (level 4) which reflects the impact of FDP on participants' career can also be explored for future reference.

References

1. Bligh J. (2005): Faculty development. *Med Educ.* 39:120–2.
2. Estrada, M. A. (2008): Impact of internal Faculty Development training Program on teaching effectiveness, *Philippines e-journals*, 5(1).
3. Hamilton GC, Brown JE. (2003): Faculty development: what is faculty development? *Acad Emerg Med* 10:1334–6.
4. Kala & Chaubey (2015): Attitude of faculty members towards faculty development programs and their perceived outcomes, *Pacific Business Review*, 8(2), Pp 21-30.
5. Kamel, A. M. F.(2016): Role of Faculty Development Programs in improving teaching and learning, *Saudi Journal of Oral Sciences*, 3(2), pp-61-68.
6. Kirkpatrick DL. (1971): *A Practical Guide for Supervisory Training and Development*. Reading, MA: Addison-Wesley.
7. Nandan, Nandan & Ghosh (2010): A dynamic model for evaluation of usefulness of faculty development programme in the area of business management.
8. Ortlieb, E. T., Biddix, J. P., & Doepker, G. M. (2010). A collaborative approach to higher education induction. *Active Learning in Higher Education*, 11(2), 109-118.
9. Reid A, Stritter FT, Arndt JE. (1997): Assessment of faculty development program outcomes. *Fam Med*, 29:242-7
10. Rowbotham, M. A. (2015): The impact of Faculty Development on teacher Self Efficacy, Skills and Perspectives, <https://ierc.education/wp-content/uploads/2015/11/2015-1FFR-Impact-of-Faculty-Development.pdf> accessed on 12/06/2018.
11. Salzberger, T., M. Sarstedt, and A. Diamantopoulos. (2016): Measurement in the social sciences: WhereC-OAR-SE delivers and where it does not. *European Journal of Marketing* 50, no. 11: 1942–52.