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Effectiveness of Faculty Development Programmes, A Tool to Production Enhancement in Higher Education Sector

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Abstract: Faculty Development Programmes have become an integral part of Indian Higher Education system. Teachers are expected to undergo these programmes not only for professional development but also for their career advancement. Through the present research an effort has been made to explore their effectiveness as perceived by participants, in the fast changing knowledge world which is highly affected by the technological developments particularly information technology. Measures for improvement in these courses have also been explored on the basis of perception of participants.

Keywords: Orientation programmes, Refresher courses, Academic Staff Colleges, University Grants Commission

1. INTRODUCTION

Indian visionaries have always recognized knowledge as key to development. University Education Commission (1948-49), headed by Dr. S. Radhakrishnan suggested, "it is for the universities to create knowledge and train minds who would bring together the two, material resources and human energies. If our living standards are to be raised, a radical change of spirit is essential." Various documents starting from the first Education Commission Report to Five Year Plans, and Education Policy documents, all suggest regular training and development activities for the new entrants as well as in-service teachers working at various levels. Alphonse,(2008) suggested "…… imparting quality education requires 'faculty development' or what many call 'faculty recharge programmes' so that the faculty does not go stale, it retains its vibrancy and dynamism in doing research, in learning, and innovating and in devising new methods of teaching."

Malcolm Gillis, President of Rice University emphasized, "Today, more than ever before in human history, the wealth-or poverty-of nations depends on the quality of higher education. Those with a larger repertoire of skills and a greater capacity for learning can look forward to lifetimes of unprecedented economic fulfilment. But in the coming decades the poorly educated face little better than the dreary prospects of lives of quiet desperation."

2. PRESENT SCENARIO OF ACADEMIC STAFF ORIENTATION SCHEME IN INDIA

The Academic Staff Colleges, established by University Grants Commission (UGC) conduct specially designed Academic Staff Orientation Programmes for newly appointed teachers in higher education system and refresher courses for in service teachers.

The Orientation programmes, on the one hand endeavour to inculcate the quality of self- reliance among the young teachers through awareness of the social, intellectual and moral environment and on the other motivate them to discover their self-potential. The orientation programmes focus on creating awareness towards problems of the Indian society and the role of education, higher education leaders and educators in the resolution of these problems to achieve desired goals in national development. The Refresher courses provide opportunities for serving teachers to exchange experiences with their peers. These provide a forum to abreast of the latest advances in the subjects, technological spin off etc.

Apart from Academic Staff Orientation Programmes in the form of orientation and refresher courses, various higher education institutes organize faculty development programmes under Quality Assurance Schemes either funded by AICTE or self-sustained models. Moreover, there are National Institutes of

Technical Teachers Training and Research, which hold training courses in technical and professional areas.

2.1 Required number of courses under career advancement scheme

As per UGC notification on "Revision of pay scales and minimum qualifications for appointment of teachers in universities & colleges and other measures for the maintenance of standards, 1998" for placement in senior scale, in addition to the other requirement in the guidelines, the lecturer should also participate in one orientation programme and one refresher course. (Those with Ph.D Degree would be exempted from one refresher course).

As per the Gazette of India Notification dated September 18, 2010 regarding UGC regulations on minimum qualifications for appointment of teachers in Universities and Colleges and measures for the maintenance of standards in Higher Education, 2010, faculty development programmes have been linked to the Academic Performance Indicators (API) in Career Advancement Scheme (CAS). Under the present system, teachers are awarded 20 points on successfully participating in the faculty development programmes for not less than two weeks duration and are awarded 10 points on successfully participating in the FDPs for one week duration.

3. THEORETICAL FRAMEWORK

Karen L. Smith (1997) reveals that an education process that pushes students to the centre changes the teacher's role to one of facilitator, guide, and coach….. Rather than depending on a single set of materials and activities within a content area, all learning becomes interdisciplinary as students expand on prior knowledge, pursue interests, combine information in new ways to solve problems and reach new understanding of old knowledge. Learning becomes a dynamic, customized pursuit of new solutions rather than the acquisition of a preconceived package of facts. It becomes possible for learners to discover what even experts do not know. Thus learners become teachers even as experts remain perpetual learners within the new recursive cycle of exploration and discovery. The World Bank Report titled 'Higher Education in Developing Countries Peril and Promise' (2000) states, "As knowledge becomes more important, so does higher education. Countries need to educate more of their young people to a higher standard, a degree is now a basic qualification for many skilled jobs. The quality of knowledge generated within higher education institutions, and its availability to the wider economy, is becoming increasingly critical to national competitiveness."

Two universities with identical numbers of faculty, degree programs, expenditures, and enrolment may vary widely in how successful they are in rankings such as those conducted by U.S. News and World Report. The difference is often intangible value that is added by effective knowledge management. Organizations that reward collaboration and information sharing are "outperforming companies …" (Microsoft, 2000,). Mani R.S.(2005) has suggested that there is a need to develop linkages with other teacher education institutions in India and abroad for meaningful interaction, sharing for development. He further stated that "Higher education needs to be more quality conscious in terms of processes, standard and product. Higher education teachers need to continuously learn, train and get oriented to new knowledge skills and application in their chosen field. The increased awareness of needs of students and providing a variety of educational programmes to meet the choice will usher in new era for growth and development." Opre et.al. (2008) in their study conducted on four Romanian universities found that participators perceived - the detailed knowledge of one's own line of specialization, teaching skills improvement, improvement of one's performance in publishing/presenting the results of research, as areas of relevance for FDPs. Polly et.al. (2011) state, as institutions of higher education increase access and support the use of educational technologies, there is a need to examine how to best support faculty's integration of technology into their courses.

Waghmare (2012) stated that teachers have to play an active role in the development of the horizons of their respective disciplines by way of involving themselves voluntarily in systematic research activities.

"Training of teachers for imparting higher education is relatively a new concept. It is mandatory for the school teachers to have a degree in Education through professional colleges. However, in higher education, there are no such professional qualification requirements for teachers except the NET/ SLET, M.Phil. and Ph.D. which actually do not train them for teaching profession at the higher education level."(NAAC Review Committee Report, 2012) In order to overcome these deficiencies, and to keep pace with the upcoming developments UGC, launched its Academic Staff Orientation Scheme (later known as Academic Staff Colleges Scheme) in 1987. A period of 25 years (1987 to 2012) is long enough to review any scheme.

Following the bureaucratic system, Academic Staff Colleges follow the policy guidelines issued by UGC. It has been found that there are no major policy changes since the time ASCs started functioning.

4. OBJECTIVES

The orientation and refresher courses have been linked with the career advancement scheme for higher education faculty members. Hence to attend these programmes is a mandatory condition for all the teachers. Through present research an effort has been made to explore whether they serve the purpose for which they were started by the policy makers and are they effective in the fast changing developmental needs of the higher education faculty members. The present study is guided by the following objectives:

• To identify the effectiveness of faculty development programmes conducted by Academic Staff Colleges in Delhi on the basis of perception expressed by the higher education teachers who attended them.

• To suggest improvement measures for enhancement of effectiveness of faculty development programmes on the basis of suggestions made by higher education teachers.

5. RESEARCH METHODOLOGY

The study is conducted by using analytical and descriptive type of methodology. Questionnaire survey was used to study the training needs of higher education practitioners. After the pilot study questionnaire was refined and reformed on Likert Scale, which comprised different effectiveness dimensions of faculty development programmes.

5.1 Data Collection - 450 questionnaires were distributed among the practitioners of higher education towards the end of training programmes in various staff colleges located in the capital city of Delhi. Only 359 questionnaires could be received back out of which 302 were found suitable for inclusion in the present study as rest of them were incomplete.

5.2 ReliabilityAnalysis (Cronbach α)

Before any statistical analysis of the data, it is important to measure the reliability and validity of the instrument. The reliability of the scale was estimated by calculating Cronbach's α. The α value obtained is .96 (N=302), for the first part of study regarding effectiveness and .84 for the second part regarding improvement measures which indicates high reliability level of the scale.

5.3 Participants demographic profiles

Frequency analysis of the data discloses that there are 101 participants who attended FDPs at Academic Staff College JamiaMilliaIslamia, 104 attended at Centre for Professional Development in Higher Education, University of Delhi and 97 attended at Academic Staff College, Jawahar Lal Nehru University, Delhi. 155 responses have been collected from the participants of orientation programmes and 147 responses are from the participants of refresher courses. There are 150 male and 152 female participants in this study. 52% participants are from the age group 25 – 34. It is notable that usually people of this age group join as faculty members in the Higher Education Sector and they are more career oriented and work for getting career advancements. 37% participants are from the age group 35 – 44.

This is the time when people struggle for reaching the higher rungs of the professional hierarchy. Rest of the participants are from the age groups above 45 years. People belonging to this age group are usually those who are well established in their profession and are stable. 73% of the participants are Lecturer/Assistant Professor and 20% participants are Sr. Lecturers/Assistant Professors (Sr. Scale). Rest of the Participants are Associate Professors or Professors.

5.4 Hypotheses

As per the perception of the participants

H1: Class handling skill development for knowledge transfer is effectively included in the FDPs.

H2: Knowledge enhancement on education related subjects is effectively included in the FDPs.

H3: Educational support activities for professional development are effectively included in the FDPs.

H4: Assessment of knowledge through evaluation is effectively included in the FDPs.

H5: Technological skills development for knowledge management is effectively included in the FDPs.

H6: Using Technology for Knowledge Management is effectively included in the FDPs.

H7: Knowledge Creation through Research is effectively included in the FDPs.

H8: Knowledge for Professional Development is effectively included in the FDPs.
H9: Competency building is effectively included in the FDPs.
H10: Personality development is effectively included in the FDPs.
H11: Managerial skill development is effectively included in the FDPs.
H12: Matters related to national development in which higher education can play a positive role are effectively included in the FDPs.
H13: Networking for knowledge sharing is effectively covered through FDPs.

5.5 Data Analysis

5.5.1 Hypotheses Testing

Statistical tool that has been used for testing the above hypotheses regarding effectiveness of FDPs at 95% level of significance is right tailed z-test at test value 3. Since value 3 has been assigned to the neutral position, mean values above 3 indicate that majority of the respondents have answered on the higher side to the questions asked regarding effective inclusion of various dimensions of FDPs in the recent faculty development programme attended by them

Statistically it can be said that $H_0: \mu \leq 3$; $H_1: \mu > 3$

Table 1 – Hypotheses Testing for Impact - One-Sample Test

	Test Value = 3				
	T (z statistics)	df	Sig. (2-tailed)	Mean Difference	Hypotheses supported/ Not supported
CLASS HANDLING SKILLS FOR KNOWLEDGE TRANSFER	5.737	301	.000	.33002	Supported
KNOWLEDGE OF EDUCATION RELATED SUBJECTS	4.803	301	.000	.23262	Supported
EDUCATIONAL SUPPORT ACTIVITIES FOR PROFESSIONAL DEVELOPMENT	3.496	301	.001	.21854	Supported
ASSESSMENT OF KNOWLEDGE THROUGH EVALUATION	-12.795	301	.000	-.83907	Not supported
TECHNOLOGICAL SKILLS FOR KNOWLEDGE MANAGEMENT	-1.256	301	.210	-.07947	Not supported
USING TECHNOLOGY FOR KM	-9.242	301	.000	-.58775	Not supported
KNOWLEDGE CREATION THROUGH RESEARCH	2.753	298	.006	.14429	Supported
KNOWLEDGE ACQUISITION FOR PROFESSIONAL DEVELOPMENT	10.855	301	.000	.47848	Supported
COMPETENCE BUILDING	13.120	301	.000	.64735	Supported
PERSONALITY DEVELOPMENT	11.084	300	.000	.54219	Supported
MANAGERIAL SKILLS	7.794	301	.000	.43377	Supported
NATIONAL DEVELOPMENT & H.E.	15.460	301	.000	.68874	Supported
NETWORKING FOR KNOWLEDGE SHARING	20.586	300	.000	.97896	Supported

(Sample size being large t-test automatically gets converted into z test in SPSS)

The standard normal statistic for the given significance level, (α) of 0.05,Zα is 1.64. (Malhotra & Dash 2009, Webster 2010) Since the values of z statistics for all the constructs, except assessment of knowledge through evaluation, technological skill development for K.M. and usage of technology for K.M., are greater than 1.64 (critical value for right tailed z test) at 95% level of significance (Table 1),

Null hypothesis in all other areas except these three, is rejected.

5.5.2 Categorization on the basis of Mean

In order to know the level of effectiveness, criteria of mean have been adopted.Mean ratings were calculated for each professional development area, which were then ranked. Effectiveness of faculty development programmes in various dimensions was categorized on the following basis:

Areas with a mean score of 4.1 to 5.0 were considered to be highly effective

Areas with a mean score of 3.1 to 4.0 were considered to be effective

Areas with a mean score of 2.1 to 3.0 were considered moderately effective

Areas with a mean score of <2.0 were considered to be not effective.

Descriptive statistics in descending order of mean is presented below, which depicts the areas for FDPs in descending order of effectiveness, as per the perception of participants

Table 2 – Categorization of Affective Areas

	Mean	Std. Deviation	Level of Effectiveness
NETWORKING FOR KNOWLEDGE SHARING	3.9790	.82503	Effective
NATIONAL DEVELOPMENT & H.E.	3.6887	.77419	Effective
COMPETENCE BUILDING	3.6474	.85748	Effective
PERSONALITY DEVELOPMENT	3.5422	.84867	Effective
KNOWLEDGE ACQUISITION FOR PROFESSIONAL DEVELOPMENT	3.4785	.76599	Effective
MANAGERIAL SKILLS	3.4338	.96718	Effective
CLASS HANDLING SKILLS FOR KNOWLEDGE TRANSFER	3.3300	.99963	Effective
KNOWLEDGE OF EDUCATION RELATED SUBJECTS	3.2326	.84165	Effective
EDUCATIONAL SUPPORT ACTIVITIES FOR PROFESSIONAL DEVELOPMENT	3.2185	1.08620	Effective
KNOWLEDGE CREATION THROUGH RESEARCH	3.1443	.90642	Effective
TECHNOLOGICAL SKILLS FOR KNOWLEDGE MANAGEMENT	2.9205	1.09922	Moderately Effective
USING TECHNOLOGY FOR KM	2.4123	1.10522	Moderately Effective
ASSESSMENT OF KNOWLEDGE THROUGH EVALUATION	2.1609	1.13965	Moderately Effective

The descriptive results as shown in Table 2 depict that none of the dimensions is highly effective as per the perception of higher education faculty members. However, all the areas except, 'technological skills for knowledge management', 'using technology for knowledge management' and 'assessment of knowledge through evaluation' (Moderately covered areas), are effectively covered in the faculty development programmes.

5.6 Improvement Measures Suggested for Enhancement of Effectiveness of FDPs

Suggestions of the participants were asked through certain statements based on Likert-type Scale. On the basis of mean, suggestions of the participants are presented below in descending order of mean, i.e., on the basis of priorities:

1. Feedback of the participants should be considered for future course planning and implementation. (Mean = 4.45)

2. Resource persons should be knowledgeable. (Mean = 4.35)

3. Participants should be actively involved. (Mean = 4.30)

4. Academic staff colleges can be connected by internet/intranet, etc. and important areas of knowledge can be shared among them. (Mean = 4.24)

5. Usage of Information technology may improve the availability of FDPs by eliminating the geographical boundaries among participants and academic staff colleges. (Mean = 4.16)

6. Synopsis for each lecture should be provided (Mean = 4.13)

7. The course schedule should be made available preferably when one applies for the course or at least on the day of inauguration (Mean = 4.08)

8. Needs of the participants should be assessed before offering them the course (Mean = 4.06)

9. There should be different levels of refresher courses (Mean = 3.96)

10. There should be more integration of industry with the academics during FDP (Mean = 3.95)

11. Refresher courses should cover one very specific aspect in greater depth (Mean = 3.89)

12. Recorded Lectures of eminent resource persons can be made available to the future participants. (3.86)

6. CONCLUSION

The result of the above study indicate that none of the areas needed for faculty development is included in the programmes in highly effective manner and so they need to be made more effective for bringing in desired changes in the higher education system. NAAC Review Committee, 2012 has also recommended Structural, Academic and Functional reforms with a new nomenclature for the ASC namely "Human Resources Development Centre (HRDC)". This has been suggested to address the current challenges and requirements of Human Resources for the Higher Education system in the country.

7. SCOPE FOR FURTHER RESEARCH

Linking faculty development programmes to the needs of faculty members is need of the hour. Suitable researches in that area may help structural policy changes to improve production of higher education sector through effective faculty development programmes. Technology has brought in many changes in the teaching-learning practices and theemerging role of teachers is shifting to learner centric facilitator and for that purpose we need to alter the whole system of higher education teaching ranging from pedagogy to evaluation. Therefore, there is a vast scope of research in this area.

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