

Role of Faculty Development Programs to Improving Teaching and Learning Methods

Dr. Prabhat Ch Kalita

Principal, Paschim Barigog Anchalik Mahavidyalaya,
P.o- Barang Hati, Dist- Kamrup (Rural), Pin- 781350

Abstract—Faculty development programs (FDPs) have proven to be successful for improving teaching skills in higher education. This review article summarizes literature reviews and resource books on faculty development. It tackled why FDP is important, history of FDP in the past years, and questioned whether FDP produced any positive effect on students' academic achievement as well as the different methods to assess FDPs effectiveness. The review also discussed how to establish FDP, presented its ideal structure, features that make FDP effective, and outlined the barriers to its successful implementation as well as the future vision. This report also highlighted the situation of FDP in Saudi Arabia. Finally, the review concluded that professional FDPs produce promising outcomes in the learning and teaching practices and recommended that teachers in higher education should attend FDP training activities on regular basis and that the scope of planned FDPs should extend beyond the health professions discipline, to include social skills necessary for collaboration, professional growth as well as management, and leadership abilities.

Keywords: Faculty development programs, higher medical education, improving teaching skills, training.

Introduction

It has been long believed that the most important resource that any institution of higher education has is its faculty members who teach knowledge and skills to students.[1] However, during the first half of the last century, it was assumed that a competent basic scientist or clinical professional would naturally be an effective teacher.[2] Even most medical schools recruited faculty members more for their content knowledge and clinical skills rather than for their educational skills, then after that we find faculty members sometimes being criticized for shortcomings in their teaching performances.[3]

Medical school faculty members are currently faced with increasing demands to be creative and effective teachers, successful investigators, and productive clinicians. These pressures have been derived from contemporary curriculum development, competition in the health care institutions, and from the limited resources for research.[4] One study[5] emphasized that such changes entailed faculty members to attain new knowledge, diverse skills, and abilities in many aspects including:[5]

- Managing multiple roles and new responsibilities:

Like clinic instruction, micro-group teaching, problem-based tutorials, case-based discussions, become mentors and develop and evaluate new curricula

- Integrating technology into teaching, learning, and research and master new computer-based educational programs
- Leadership and management proficiency.

Faculty members need to be prepared enough by some sort of a faculty development program (FDP) in order to deal with the rapid changes and shifting paradigms in medical education, health care delivery systems, and clinical practice.[6] Without such training, teaching is often reduced to instructors presenting their understanding of the subject by one-way lecturing.[7]

Over the past five decades, faculty development activities evolved in focus and expanded progressively.[8] There have been sporadic efforts in the first half of the 20th century to provide such training,[9,10] but true FDPs began in 1975 and have grown steadily over the past 25 years.[11,12]

In 1975, Gaff[13] conceptualized the faculty development in higher education as those activities that help teachers improve their teaching skills, design improved curricula, and enhance the organizational climate for education. Furthermore, Stritter[14] described setting up individual consultations on teaching skills, curriculum design, and collaborative educational research.

Faculty development has been defined as that wide range of activities that institutions apply to support faculty members' roles.[15] This included programs designed to improve the performance of faculty members in education, research and administration[16] as well as augmenting organizational capacities and culture.[17] A study by Riegle[18] found that a number of descriptions for the term "faculty development" were used. Among these are:

- Instructional development which emphasized the development of faculty skills involving instructional

technology, small group teaching, media, courses, and curriculum design

- Professional development which emphasized the development of individual faculty members in their professional responsibilities as educators, researchers, and administrators
- Organizational development which emphasized the requirements, and main concerns of the institution
- Career development which emphasized faculty preparation for career advancement
- Personal development which stressed on life planning, interpersonal and communication skills of faculty members.

At present, faculty development has become an increasingly important constituent of medical education offering a wide array of programs.[2] This surge in growth had been brought about by recognizing the value of faculty support in their roles as educators, researchers, and administrators aiming for an energetic academic life and culture.[2] In 2011, Blaich and Wise[19] regarded the steady international growth in FDPs as one of the most valuable changes that took place in higher education in the last few decades.

Why are faculty development programs important?

In recent times, there has been accumulating evidence about the ineffectiveness of the traditional way of teaching.[7,19] In 2000, Steinert[20] highlighted the importance of faculty development to respond to advances in medical education and healthcare delivery, to continue to adapt to the growing responsibilities of faculty members, and to carry out more rigorous program evaluations. She also stressed that FDPs needed to expand their focus, consider different training methods and formats, and encourage new partnerships and collaborations.

In 2007, Gappa *et al.* [21] discussed the evolving factors that have important implications on faculty members that should be considered through faculty development:

- Fiscal constraints and calls for accountability - that necessitate that faculty members demonstrate greater accountability in the face of the increasing expenses of public and private investment in education, and concerns from parents, students, legislatures, and the general public
- Increasing diversity of students - with varying age, aspirations, cultural, and academic backgrounds. Effective faculty must support the learning of those students with diverse learning needs, and develop curricula and teaching strategies appropriate for a wide range of learning environments
- The opportunities and challenges of technology: Technologies offer many opportunities to enhance learning processes with information, simulations, and

engaging learning activities, and faculty members must have the knowledge and skills to take advantage of these advances in their teaching and curriculum planning

- Changes in faculty characteristics and shifts in appointment patterns: That requires finding ways to integrate the new faculty members into the institution's community and culture, and at the same time, ensuring the quality of their skills and abilities.

History of faculty development programs

Over the past four years, a variety of FDPs have been developed to enhance instructional skills. In 1983, Sullivan[23] advised that newly-designed FDPs should initiate, infuse, and sustain change in targeted faculty. In 1992, Hitchcock *et al.*[24] reviewed earlier studies of the faculty development[14,16,25] and concluded that the concept of faculty development was evolving and expanding. Furthermore, Hubbard and Atkins[26] considered faculty development strategies as valuable means to enhance the faculty and institution capabilities to create an enriched environment that expanded faculty awareness of new emerging information and is directed at understanding the growing nature of higher education.

Currently, contemporary approaches of faculty development crucially address expanding faculty awareness about vitality and renewal of teaching skills.[26] strengthening relationships between colleagues,[27] supporting stated institutional missions,[28] and dealing with both the faculty member's and institution's capacity to survive.[29]

Do faculty development programs activities have a positive effect on student academic achievement in higher education?

In 2005, Bligh[17] reported that implementing FDP was expected to result in enhanced teaching performance by instructors and improved learning outcomes for students. Such improvements included the development of new teaching skills or assessment techniques, improved ways of designing or implementing curricula, newer ways of viewing the student-teacher relationship, and increased commitment to the educational perspectives. Steinert *et al.*[2] collection of student and resident data, especially indices of learner behavior and student evaluations of teaching competencies. They emphasized that all these data needed to be augmented by careful assessment of changes in students' and residents' own knowledge, attitudes, and skills. The authors summarized the expected outcomes from FDPs:

- High satisfaction with FDPs
- Changes in attitudes toward teaching and faculty development
- Gains in knowledge and skills
- Changes in teaching behavior

- Changes in organizational practice and student learning.

Three general areas have been assessed: (1) Satisfaction measured by participation data or surveys; (2) impact on teaching assessed through student evaluations, syllabus analysis, follow-up observation, and focus groups, and (3) impact on learning such as student retention, grade point averages and products of student learning.[30] More recently, Elliott and Oliver[31] found that FDPs yielded positive outcomes in teacher practices and student learning—both vital to the institutional mission and goals. However, in general, the expected change would be slow and also influenced by other factors, i.e., not all change would be a consequence to the effect of faculty development alone.[32]

How to assess the effectiveness of faculty development programs?

So far, several publications reviewed the value of faculty development activities. Different measures of performance should be used in evaluation of FDP such as questionnaires, videotape recordings; student assessments and faculty reports.[2] Student ratings focused on the perceived increase in active learning, delivery of prompt feedback, clarity of lecture materials while faculty reported increases in their perception of competence and confidence related to lecture-based teaching.[30] In general, there was a strong belief that FDPs were beneficial as measured through surveys and student evaluations.

Some studies[33,34] used multiple measures to assess the outcome such as self-ratings, video-taped observations, and student ratings. Several studies found a strong correlation between videotape ratings and knowledge tests.[35,36] These findings, suggested the likelihood of conducting reliable evaluations without the need for direct observation which could be costly and time-consuming.[2]

In 1997, Reid *et al.*[37] reviewed several studies published between 1980 and 1996 and concluded that faculty development fellowships, workshops, and seminars yielded positive outcomes.

However, reliable and valid measures are required to accurately measure the effectiveness of FDPs.[2] Most studies used questionnaires for psychometric properties. Faculty developers and researchers concerned in assessing change should consider using valid and reliable questionnaires, or work seriously to establish these measures. For example, a number of scores and measures of teacher performance have been developed in education.[38] Whenever possible, different assessment tools should be used and collaborated in order to obtain more consistent results.[2]

In one review, Glowacki-Dudka and Brown elucidated the beneficial effects of medical FDP by participants' self-evaluation of teaching skill, awareness of effective teaching methods, and student evaluations. Focused instructional consultations were used by Finelli *et al.*[30] and

demonstrated improvements in student ratings and changes in teaching practice.

How to establish faculty development program

Different approaches to improve teaching have emerged, generally in association with changing theories of learning.

FDP could successfully start with modest resources, if combined with strong institutional eagerness for its success. For example, one of the simplest ways to begin a program is to simply call for interested faculty and staff to discuss issues related to teaching, career development, or leadership.

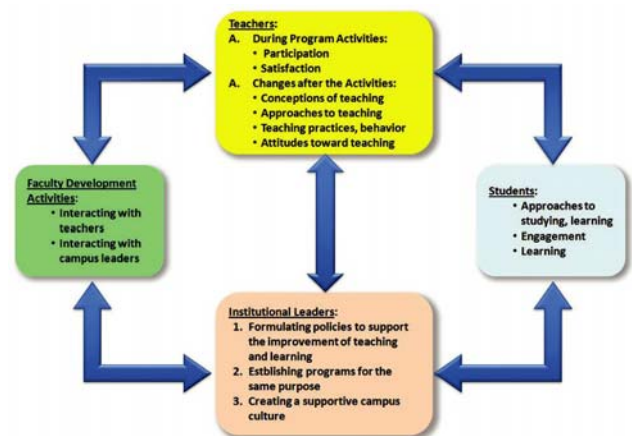


Figure 1: The potential scope and purpose of faculty development programs

FDP vary in structure and function and in fact, there is no one ideal model and all programs have advantages and disadvantages. Any preference will depend on key situational factors: Financial support, human resources (e.g., staff support, faculty time), campus resources (e.g., other FDPs within the institution, internal grants), and local expertise such as faculty or staff members with interest or relevant background.

In the literature, it was reported that faculty development could be established through:

- Faculty development centers concerned with designing and implementing programs of faculty development activities that supported the academic goals of the institution. Often the center is managed by dedicated, full-time administrative staff members, as well as other faculty selected on the basis of their expertise, leadership abilities, or personal interests[30]
- Faculty development committees that might exist separate or in conjunction with a center to serve an advisory role to maintain contact with the faculty at large. These committees included several faculty members and operated at departmental/division level, college or school level, or encompassed larger bodies (e.g., multiple colleges or schools within a health science campus)

- Programs to advance teaching and learning that ranged from a one-time activity to regularly scheduled workshops or seminars, to highly competitive, application-driven, multi-month fellowship, or scholar programs. A variety of topics that FDP could address were selected. Table 1 identifies potential topics
- A 1 year training program in teaching: Which demonstrated successful outcomes in the form of increased interest for teaching; increased research and publication in education.

Structure of faculty development programs

The prototype of FDP was a short, focused series of training workshops providing exposure to sound teaching principles, educational techniques, or chosen topics, ideally with some opportunity to practice newly acquired skills.[3] Several research studies demonstrated that such programs had a variety of purposes, including improving attitudes, self-efficacy,

Table 1: Topics addressed in a Faculty development programs that emphasizes teaching, learning, and assessment

Syllabus/course design
 Writing objectives
 Constructing assessments
 Rubric design
 Grading strategies
 Student motivation
 Learning disabilities
 Classroom management
 Active learning
 Presentation and communication skills
 Self-reflection
 Searching and evaluating evidence

Table 2: Ten steps for building a successful Faculty development programs

Build stakeholders by listening to all perspectives Ensure effective program leadership and management Emphasize faculty ownership Cultivate administrative commitment Develop guiding principles, clear goals, and assessment procedures Strategically place faculty development within the organizational structure offer a range of opportunities, but lead with strengths Encourage collegiality and community Create collaborative systems of support Provide measures of recognition and awards and teaching activities;[providing feedback in clinical teaching augmenting self-assessed and actual use of specified teaching concepts facilitating faculty's ability to recognize teaching deficiencies and increasing knowledge of teaching principles and teaching ability. These

short-term programs typically addressed very limited content and teaching objectives, such as clinical educational skills, curriculum design, and providing feedback.[36]

FDPs were categorized in various ways. three components of faculty development; (1) instructional development, (2) personal development, and (3) organizational development. The first category included practices such as curriculum, development teaching diagnosis, and training. Personal development generally involved activities to encourage faculty growth, for example interpersonal skills training and career counseling. Organizational development aimed to advance the institutional environment for teaching and decision making and included activities for both faculty members and administrative staff. Developing managerial skills and team work attitudes would be important components of organizational development.

- Interpersonal skills and responsibility: The ability to become self-directed learner, work effectively in groups and practice leadership, act consistently and ethically with high moral standards
- Communication, information technology and numerical skills: The ability to communicate effectively (spoken and written), use information and communication technologies, as well as basic mathematical and statistical methods
- Psychomotor skills: Required in some fields such as medicine, music, and fine art.

Features of faculty development program that make it effective

As indicated by Hynes, faculty development is a continuous process and not only just providing some workshops and lectures not expected to change faculty members' way of teaching overnight.

According to Kirkpatrick, four conditions were considered necessary for a change to occur: (1) The person must have the desire to change, (2) knowledge of what to do and how to do it, (3) a supportive work environment, and (4) reward for changing. Fortunately, the first two conditions of change can potentially be achieved through faculty development activities.

Few reports in the literature described features of faculty development that make it effective.

These features included the following:

- The role of experiential learning: Several authors highlighted that faculty members needed to apply what had been learned during the program, practice skills, and receive feedback on the learned skills
- The value of feedback: Several studies specifically examined the utilization of feedback as a strategy and found that systematic and constructive feedback resulted in improved teaching performance

- The importance of peers: A number of reports stressed the value of peers as role models, exchanging information and ideas, and the significance of collegial support to promote and maintain change
- Adherence to principles of teaching and learning: Many authors cited principles of adult and experiential learning as an organizing structure for FDPs
- The use of multiple instructional methods to achieve the learning objectives.

Faculty participation and the success of faculty development programs

The most commonly encountered impediment to participation in FDPs is teachers' beliefs that clinical skills and expertise were sufficient for excellent teaching. Research showed that many faculty members underestimated both their potential for improvement as well as the potential value of FDPs. Research findings also indicated that some faculty members might not be aware of their teaching problems and might overrate their teaching skills before enrolling in a FDP. At least three logical and understandable reasons diminished teachers participation: (1) Underestimation of the potential benefits from a FDP, (2) lack of belief in the utility of teaching skills as opposed to clinical skills, and (3) a belief that teacher training was not related to teaching excellence.

Future vision

Initial efforts of faculty development were chiefly concerned with advancing the specific disciplinary skills of individual faculty members.[26] Then, over the past couple of decades, it was found that this conventional and narrow perspective of professional development – no longer adequately benefited the needs of faculty and institutions in relation to the fast-paced technological, globally-connected society.

It is time to shift the philosophy about faculty development and to embrace a broader view from one-time training to ongoing professional development, and from classroom to workplace activities.

Ongoing continuous professional learning rather than one-time development training was proposed by a number of educators in higher education. It was noted that professionals learn from a variety of training activities including formal programs, interactions with colleagues, and learning on the job.

One vision for the profession of faculty development in the future focused around three key themes.[5,8] First, a call for more emphasis in the field of organizational development to build up leadership abilities in the faculty, and to work with academic leaders, especially chairs and deans to create supporting environments for good teaching and scholarship. Enhancing skills and aptitudes for organizational development will become increasingly important for the profession. There seems to be a widely held assumption that the long-term effects of most faculty development activities will bring in some degree of organizational development. Second, Faculty

development will be linked to the capacity of the field to engage in more research about best practices that enhance student learning, and to work systematically on a research base in learning and teaching. Finally, enhancing the future of the profession will require new thinking about ideal structures for faculty development and less centralized ways of operating organizationally.[8]

Conclusion

High-quality professional training programs for faculty members have become essential to higher education institutions in order to be able to compete in this ever-changing world. It is clear that faculty development has become well established and has grown into a recognized activity within higher education. Professional training programs produce promising outcomes in the learning and teaching practices and many 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.

References

- [1] Hrnčiar M, Madzik P. Improving the quality of higher education in central Europe: Approach based on GAP analysis. *High Educ Stud* 2013;3:75-88.
- [2] Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, *et al.*
A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No 8. *Med Teach* 2006;28:497-526.
- [3] Gruppen LD, Frohna AZ, Anderson RM, Lowe KD. Faculty development for educational leadership and scholarship. *Acad Med* 2003;78:137-41.
- [4] Wilkerson L, Irby DM. Strategies for improving teaching practices:
A comprehensive approach to faculty development. *Acad Med* 1998;73:387-96.
- [5] Sorcinelli MD, Austin AE, Eddy PL, Beach AL. *Creating the Future of Faculty Development: Learning From the Past, Understanding the Present.* Bolton, MA: Anker Publishing, Inc.; 2005.
- [6] Steinert Y. Commentary: Faculty development: The road less traveled. *Acad Med* 2011;86:409-11.
- [7] Fink LD. The current status of faculty development internationally. *Int J Scholarsh Teach Learn* 2013a; 7:1-10.
- [8] Austin AE, Sorcinelli MD. The future of faculty development: Where are we going? *New Dir Teach Learn* 2013;133:85-96.
- [9] Gray WS, editor. *The training of college teachers, including their preliminary preparation and in service improvement.* Vol. 2. Chicago: The University of Chicago Press; 1930.
- [10] Blegen TC, Cooper RM, editors. *The Preparation of College Teachers.* Washington, D.C.: American Council on Education; 1950.
- [11] Al-Wardy NM. Medical education units: History, functions, and organisation. *Sultan Qaboos Univ Med J* 2008;8:149-56.

- [12] McLeod PJ, Steinert Y. The evolution of faculty development in Canada since the 1980s: Coming of age or time for a change? *Med Teach* 2010;32:e31-5.
- [13] Gaff JG. *Toward Faculty Renewal: Advances in Faculty, Instructional, and Organizational Development*. San Francisco, CA: Jossey-Bass; 1975.
- [14] Stritter FT. Faculty evaluation and development. In: McGuire CH, Foley RP, Gorr A, Richards RW, editors. *Handbook of Health Professions Education*. San Francisco, CA: Jossey-Bass; 1983. p. 294-318.
- [15] Centra JA. Types of faculty development programs. *J High Educ* 1978;49:151-62.
- [16] Sheets KJ, Schwenk TL. Faculty development for family medicine educators: An agenda for future activities. *Teach Learn Med* 1990;2:141-8.
- [17] Bligh J. Faculty development. *Med Educ* 2005;39:120-1.
- [18] Riegler R. Conceptions of faculty development. *Educ Theory* 1987;37:53-9.
- [19] Blaich C, Wise I. The Wabash National Study – The Impact of Teaching Practices and Institutional Conditions on Social Growth. American Education Research Council Annual Meeting. Crawfordsville, Indiana: Wabash College, Center of Inquiry in the Liberal Arts; 2011.
- [20] Steinert Y. Faculty development in the new millennium: Key challenges and future directions. *Med Teach* 2000;22:44-50.
- [21] Gappa JM, Austin AE, Trice AG. *Rethinking Faculty Work: Higher Education's Strategic Imperative*. San Francisco CA: Jossey-Bass; 2007.
- [22] Al-Eraky MM, Donkers J, Wajid G, Van Merriënboer JJ. Faculty development for learning and teaching of medical professionalism. *Med Teach* 2015;37 Suppl 1:S40-6.
- [23] Sullivan L. Faculty development: A movement on the brink, University of Arkansas. *The College Board Review* 1983;127. p. 20-1, and 29-30.
- [24] Hitchcock MA, Stritter FT, Bland CJ. Faculty development in the health professions: Conclusions and recommendations. *Med Teach* 1992;14:295-309.
- [25] Bland CJ, Schmitz CC. Characteristics of the successful researcher and implications for faculty development. *J Med Educ* 1986;61:22-31.
- [26] Hubbard G, Atkins S. The professor as a person: The role of faculty well-being in faculty development. *Innov High Educ* 1995;20:117-28.
- [27] Gaff J, Simpson R. Faculty development in the United States. *Innov High Educ* 1994;18:167-76.
- [28] Schuster JH, Wheeler DW. *Enhancing Faculty Careers: Strategies for Development and Renewal*. Jossey Bass Publishers, 350 Sansome St., San Francisco, CA 94104; 1990.
- [29] Blackburn R, Lawrence J. *Faculty at Work: Motivation, Expectation, Satisfaction*. Baltimore, MD: The Johns Hopkins University Press; 1995.
- [30] Finelli CJ, Ott M, Gottfried AC, Hershock C, O'Neal C, Kaplan M. Utilizing instructional consultations to enhance the teaching performance of engineering faculty. *J Eng Educ* 2008;97:397-411.
- [31] Elliott RW, Oliver DE. Linking faculty development to community college student achievement: A mixed methods approach. *Community college journal of research and practice* 2016;40:85-99.
- [32] Jolly B. Faculty development for organizational change. In: *Faculty Development in the Health Professions*. Netherlands: Springer; 2014. p. 119-37.
- [33] Skeff KM. Evaluation of a method for improving the teaching performance of attending physicians. *Am J Med* 1983;75:465-70.
- [34] Skeff KM, Stratos G, Campbell M, Cooke M, Jones HW 3rd. Evaluation of the seminar method to improve clinical teaching. *J Gen Intern Med* 1986;1:315-22.
- [35] Mahler S, Benor DE. Short and long term effects of a teacher-training workshop in medical school. *High Educ* 1984;13:265-73.
- [36] Sheets KJ, Henry RC. Assessing the impact of faculty development programs in medical education. *J Med Educ* 1984;59:746-8.
- [37] Reid A, Stritter FT, Arndt JE. Assessment of faculty development program outcomes. *Fam Med* 1997;29:242-7.
- [38] Gibbs G, Coffey M. The impact of training of university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learn High Educ* 2004;5:87-100.