

Professional development of faculty members: the main factors that affect it

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ABSTRACT

The purpose of this paper is to identify and prioritize the effective factors on professional development of Faculty Members and presents a framework of factors that affect this process. The method of study is mixed exploratory method. In qualitative phase, by semi-structured interview with 15 key informants, effective factors on faculty development were identified and classified. In the second phase, the views of 282 faculty members of Tehran University were collected via questionnaire. The results show that two types of factors are identified including personal factors and organizational factors. Among personal factors, personality characteristics had the highest importance and then there are motivation, scientific background, professional commitment, and responsibility. Among organizational factors, organizational climate had the highest priority and then there are career system, management, development opportunity, structural factors, and subsistence factors.

Keywords: Faculty development, Professional development, Higher education

Introduction

Higher education system in order to improve the quality, knowledge dissemination, research development and effective relationship with society needs strategic plans for continuous professional development of faculty members. Faculty Development (FD) is one of the most important concepts of higher education system and it has a great importance in improving the quality of higher education.

Faculty members in universities are the most important component of improvement and guaranteeing the quality of higher education. According to some theorists including Camblin and Steger (2000), the capability of University is based on its faculty members and the improvement of the capability

and knowledge of faculty members is the real example of increasing University quality.^[1] Baldwin (1983) believed that faculty members are the main capital of each university.^[2] Also, Miller (1974) stated that faculty members are the center of any university or higher education institution.^[3] A university or college is considered good, bad, effective or ineffective due to the type of its faculty members. Thus, the nature and quality of a higher education institution depends upon the quality of the capability of faculty members.

Faculty development in higher education is a solution to improve the learning and teaching quality of lecturers and developing permanent learning.^[4] From functional aspects, professional development includes all designed plans that is organized with the goal of improving skill and knowledge of faculty and increasing their performance. Professional faculty development includes three dimensions of higher education: teaching, research and specialized services.^[5]

Today, faculty development is considered as a strategic contingency process in all higher education institutions and universities of development and developing countries. Organizing and management of faculty development is turned from a selection to an obligation for universities.^[6] As, first professional development of faculty members is occurred

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better.^[7] Second, faculty member development is turned into key mechanism to improve and develop University.^[8]

In such conditions and encountering with increasing challenges of the current world, the importance of human resources development is manifested in the form of development plans in Universities. University of Tehran as the symbol of higher education in Iran with 8 decades of experience needs development activities to increase the productivity of its faculty members to keep up with the changes.

Based on the necessity of identification of factors influencing the faculty members in higher education system of the country and the lack of a systematic framework to organize the attempts of faculty member development, this study attempted to present the better understanding of faculty development in University of Tehran via identification and prioritization of effective factors on faculty development. To achieve this main purpose, the present study attempted to respond two main questions as:

- What are the effective factors on development of faculty members?
- How is the importance of each factor on the faculty development?

Review of Literature

Based on the various researches with the purpose of identification of effective factors on faculty development, we can say faculty development factors are different in various researches and each of the theorists and researchers referred to different elements. Bredeson (2002) in a research found that financing, financial supports and general views among the faculty members and educational system managers are considered as factors improving professional development plan.^[9]

Gitlin, Yuan, Little, and Todd Iii (2005)^[10] considered the following factors as effective factors in job and professional development of faculty members: 1. Encouraging faculty members to participation in projects, namely participative projects, 2. Providing experience opportunities in educational, research and management plans, 3. Encouraging faculty members and managers of educational system to achieve academic credit, 4. Providing a position for young lecturers to use the experienced lecturers, 5- Providing a separate budget including suitable encouragements for professional faculty development, 6- Encouraging self-development (self-development).

According to Newland et al., (2003) the tendency of faculty members and increasing their participation in Mentoring-student model is introduced as an index of success of professional development.^[11] In this study, some effective factors as financial supports were referred from management and leadership of University, wide planning and executive (administrative) supports. King (2004) in his study introduced participation in educational courses and conferences, professional regular interaction, membership in professional communities, consulting with the experts in professional affairs

are the source of professional growth and learning in faculty development.^[12] Variety of these factors indicates the complexity of faculty development. Thus, purposeful and planning promotion of development plans needs a process-based, participative and systematic-based approach. Thus, in addition to the consistency of faculty development policies with other academic system components, it is required to combine these policies in strategic plan of University and provide the required resources. As it was said, it reflects the unavoidable position of faculty development process in development of academic and higher education system. The identification of effective factors and planning is necessary for establishment of faculty development.

Method

The present study is applied in terms of purpose and it is also exploratory mixed study in terms of data collection. The mixed methods research includes collection, analysis and interpretation of qualitative and quantitative data in a study or a set of studies investigating a basic phenomenon. Mixed methods research as a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone.^[13]

Exploratory mixed study method is used in the present study for the following reasons: 1. Achieving more evidences for better understanding of effective factors on faculty development, 2. the lack of comprehensive model including various factors on faculty development in higher education system, and 3. the necessity of using academic expert views to identify the effective factors on faculty development.

In qualitative section, by semi-structured interview with 15 experts in higher education, qualitative data were collected. The purposeful sampling method and snowball sampling strategy was used for the identification and selection of these relevant expert. This strategy is used to identify cases of interest from sampling people who know people that generally have similar characteristics.^[14] These experts were people who had a scientific background in the topic of faculty development or those who had a work experience in the field of faculty development at the higher education system in Iran. The purpose was to select the people who gave us the most information in this area. Thus the study sample in qualitative section was academic experts those who have knowledge or experience in faculty development. Purposeful sampling was used to select the key informants. We searched for the academic lecturers and experts with much information about faculty development.^[15] The interview with experts is continued until identification and full description of main and minor factors effective on faculty development and achieving theoretical saturation. Thus, the qualitative phase result of the present study is identification of effective factors on faculty development based on the higher education system

requirements. Semi-structured interviews were used to identify effective main and minor factors on faculty development from the view of experts. To analyze the qualitative data, the following stages are used: 1. reviewing data, 2. formulating coding guidance, 3. data organizing, and 4. classification and coding the data.

In quantitative phase of the study, based on the purpose and nature of study, descriptive-survey study was used. To achieve data about the views of the study population (faculty members of the University of Tehran) regarding the effective factors on faculty development, descriptive-survey method was used. The study population was including all faculty members of University of Tehran (1733 people) that 313 of them were selected by relative stratified sampling method and finally 282 of them participated in the research. For collecting quantitative data, a questionnaire was used. This questionnaire is based on the results of qualitative section of the study. Two groups of main factors (Personal factors and organizational factors) and 11 effective sub factors on faculty development were the basis of questionnaire.

The validity of questionnaire was supported by four experts in higher education and its reliability was calculated as 0.94% by Cronbach's alpha. To analyze the quantitative data, AHP method was used and to prioritize the effective factors on faculty development, the view of faculty member of University of Tehran was applied.

Results

Question 1: What are the effective factors on the professional development of faculty members?

To identify effective factors on faculty development, at first theoretical and empirical review of literature on the studies were analyzed and some of the effective factors on faculty development were identified. Each of the researchers considered some aspects of the subject based on the study purpose and less considered the identification of effective factors on faculty development. The local researches are based on review of literature and less considered the effective factors on higher education system via a qualitative study. Thus, after the complete theoretical and empirical investigation, semi-structured interview was used for data collection of qualitative data.

To analyze the qualitative data, coding process by systematic method was used. Thus, based on coding, eliminating repeated data and final summary of data, 11 sub factors were identified and extracted. Then, the items indicating purposefully a general item are identified and a general title was determined for all of them. Finally, two main factors indicating effective factors on faculty development were identified and extracted. These main factors include: 1- Personal (individual) factors, 2- Organizational (environmental) factors. In the following, each of the factors and coding process to achieve these main items are explained.

1. Personal Factors

Personal (individual) factors are associated to faculty members themselves. The experts in fifteen interviews referred to a wide range of factors and they are referred to faculty members and their personal features. Based on the content of interviews and frequency of identified concepts, the following items are identified as the most important personal factors effective on faculty development. Table 1 shows the results of two-stage coding regarding the effective personal factors on faculty development.

Table 1. Identified effective personal factors on faculty development

Initial codes	Merged codes
Personality features, ethical features, spiritual dimension, honesty, trust, academic attitude, knowledgeable, intelligent, dynamic personality	Personality factors
Specialization, strong scientific background, fluency in English	Scientific background
Motivation, achievement motivation, interest	Motivation
The belief in scientific norms, professional commitment, commitment	Professional commitment
Responsibility, responsiveness	Responsibility

Based on the analyses and coding results of interviews, 5 items were identified as main factors of personal dimension that effect on faculty development including: Personality factors, scientific background, achievement motivation, professional commitment, and responsibility.

Personal factors include very important variables and each of them can facilitate or weaken the faculty member development. The importance of these factors is based on this fact that faculty development is an internal flow. The faculty development process starts from faculty member. One of the key informants said:

"The faculty development is directed by itself and development is internal and it is a type of motivation".

According to one of the top managers of sciences, research and technology ministry: "Faculty members should have internal commitment to self-improvement". It can be said, the importance of personal factors is based on the fact that some of the features of a developed faculty member are personality characteristics and they cannot be created by training; like interest to being a teacher, morality or even ability of creating good communication. According to one of the managers of University:

"Some of the qualifications of faculty members are inherent such as communication or morality. The teacher who has no morality is not a teacher. You cannot improve his morality by establishing educational workshop and it is due to unawareness, it can be corrected but if he doesn't believe in morality, we cannot do anything".

One of the chiefs of colleges believed that due to the importance of personal factors, we should be careful about

selecting faculty members and those selected for faculty members should be interested in this job. He said:

"In our higher education system, faculty members cannot be changed. If a faculty is weak, they should deal with him and qualified people should be selected for this job".

As shown in table (1), other effective personal development factors of faculty members are specialized knowledge and strong scientific CV, motivation and interest, responsibility and professional commitment.

Personal factors are affects faculty member development in various fields. Any person has some personality and behavioral features that promote or inhibit his attempt for development. For example, progress motivation is an important factor in development of people. The people with high achievement motivation, attempt more to achieve their goals. The interest to faculty job plays important role in faculty development. A person interested in faculty job should play important role in faculty development. The interest in faculty job plays important role in faculty development. A person interested in faculty job should be satisfied of his job and this satisfaction leads to more attempt in development. These factors are associated to faculty member but play important role in his developments.

2. Organizational factors

Organizational (environmental) factors are the conditions created by university to facilitate faculty development process. These factors are planned by university organization and providing required conditions for faculty development. Thus, organizational factors refer to the conditions and infrastructures provided for facilitation of faculty development. In order to do academic work well, faculty members should achieve development and for this, the universities should provide measurements. Table 2 indicates the identified components of interview with authorities.

Table 2. Identified effective organizational factors on faculty development

Initial codes	Merged codes
Organizational structure, structure, reduction of administrative bureaucracies, institution factor, academic independence	Structural factors
Regulation of promotion, employment rules, reduction of administrative bureaucracies, instructions	Career system
Organizational climate, cultural requirements, the lack of politics involvement, underlying space on University, Organizational culture, Scientific freedom, informal opportunities of learning.	Organizational climate and culture
Development opportunity, development plans, study opportunity, information resources providing	Development opportunity
Management support, participation in decision making, responsibility of managers, role of faculty, management support	Managerial factors
Benefits, job satisfaction, social dignity, financing	Subsistence factors

As shown in table (2), by analysis of the semi-structured interviews and coding process, 6 indices are identified as

effective organizational factors on faculty development including: structural factors (institutional), career system, organizational climate and culture, opportunity of development, management factors and subsistence factors. Organizational factors include wide range of variables and each of them can promote or inhibit faculty development.

One of the key-informants classified effective environmental factors on development as:

"Four principles should be observed in faculty development: 1. Opportunity, 2. Satisfaction, 3. Participation, 4. Support. These are four main factors directing all faculty development".

Another important factor in interviews is the role of top management of University. One of experienced lecturers said:

"The role of University management is facilitating, support to make capacity, empowerment, and facilitation and support faculty development as facilitator. When there is no meritocracy, can you develop your professional qualifications? There should be will at the highest level of university authority".

Participation of faculty members in University management is another effective factors on faculty development. One of the experts of faculty development believed that:

"The lost piece of faculty development in higher education is participation with trust and reliability. We should trust on faculty members and keep their social dignity. Faculty members should feel their voice is heard".

Organizational structures and appropriate regulations are emphasized by authorities. According to one of the top managers of Sciences, research and technology ministry:

"There should be an institution in ministry of sciences and universities responsible for development. FD center and quality centers are very effective. On the other hand, valuations systems are important organization. It is very important in which culture, promotion regulation, improvement regulation and employment results are dominant. Promotion regulation is a guiding tool; if you change this tool, the behavior is change. Sometimes that the promotion regulation focusses on research activities, it creates some change in research performance of faculty members".

After the data were analyzed in qualitative section of research, the second stage of the study (quantitative section) was started. Figure 1 shows final output of data analysis of qualitative section of research (semi-structure interviews). As shown in Figure 1, there are two general groups of factors as: A) Personal factors (personality factors, scientific background, motivation, professional commitment, and responsibility) and B) organizational factors (structural factors, job promotion system, organizational climate, opportunity of development, managerial factors and subsistence).

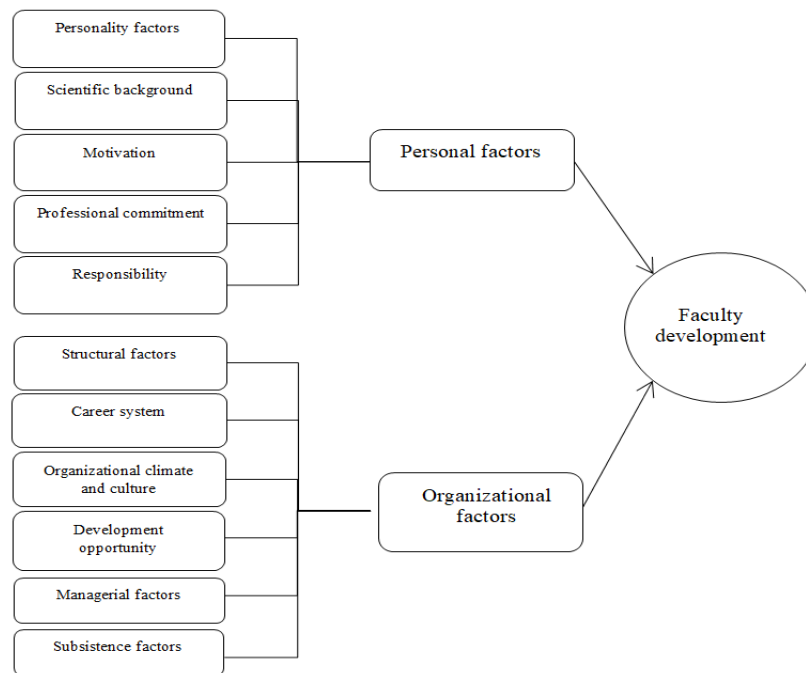


Figure 1- Effective factors on faculty development

Question 2: How is the importance of each of effective factors on faculty development?

As it was explained, the qualitative section showed two main effective factors on faculty development. Each of two main groups has components as including 11 items. The importance of each of effective factors on faculty development and the

weight of them is determined by AHP. for this purpose, the views of 282 faculty members of Tehran University were collected via questionnaire. They all have teaching experience and they were the official members of the university. Table 3 shows the descriptive statistics of this sample.

Table 3. descriptive statistics of research sample in quantitative phase

scientific disciplines	Gender		Academic degree				Total	Percent
	Men	Women	Lecturer	Assistant Professor	Associate Professor	Professor		
Technical and Basic Sciences	87	9	6	44	26	20	96	33,4
Humanities and Art	67	13	1	41	23	15	80	27,9
Social and Behavioral Sciences	36	10	0	24	13	9	46	16
Agriculture and Veterinary	57	8	4	31	19	11	65	22.7
	247	40	11	140	81	55	287	100

For implementation AHP, at first, geometry mean of pairwise comparison is calculated based on faculty views of University of Tehran and then, their relative importance was determined. To do this, at first the relative importance of personal factors was

calculated and the results are shown in table 4. Matrix diameter is 1 and it means equal preference of a component to itself and inconsistency ratio is 0.06. In AHP, inconsistency is less than 0.1. Thus, reliability of respondents is supported.

Table 4. Pairwise comparison matrix of effective personal factors on faculty development

Components	Personality factors	Scientific background	Motivation	Professional commitment	Responsibility
Personality factors	1	2.21	1.92	3.21	3.39
Scientific background		1	2.14	3.07	4.39
Motivation			1	4.06	3.87
Professional commitment				1	2.83
Responsibility					1

After calculation of geometry mean of the views of faculty members, they were combined by Expert Choice and the final weights of indices were calculated and the results are shown in Table 5 The final results of prioritization of required factors showed that personality factors with relative weight 0.302 had

the highest importance and then achievement motivation with relative weight 0.251, scientific background 0.194, professional commitment with weight 0.135 and responsibilities with relative weight 0.118 were used.

Table 5. Effective personal factors on faculty development and their relative importance

Factors	Relative importance	Priority
Personality factors	0.302	1
Scientific background	0.194	3
Motivation	0.251	2
Professional commitment	0.135	4
Responsibility	0.118	5

To calculate relative importance of effective organizational factors on faculty development, the same is done. At first, the geometry mean of organizational factors is calculated and the results are shown in Table 6.

Table 6. Matrix of pairwise comparison of effective organizational factors on faculty development

Components	Structural factors	Job promotion system	Organizational climate	Development opportunity	Management factors	Subsistence factors
Structural factors	1	2.79	2.21	1.92	3.21	3.39
Career system		1	2.39	2.14	3.07	4.39
Organizational climate and culture			1	2.81	4.06	3.87
Development opportunity				1	2.13	2.83
Management factors					1	4.92
Subsistence factors						1

After calculation of geometry mean of the views of faculty members, they were combined by Expert Choice and the final weights of indices were calculated and the results are shown in Table 7. The final results of prioritization of effective organizational factors on faculty development showed that organizational culture and climate with relative weight 0.277 had the highest importance and then career system with relative weight 0.216, managerial factors with relative weight 0.18, development opportunity with weight 0.138, Structural factors with weight 0.104, and Subsistence factors with relative weight 0.085 were used.

Table 7. Effective organizational factors on faculty development and their relative importance

Components	Relative importance	Priority
Structural factors	0.104	5
Career system	0.216	2
Organizational culture and climate	0.277	1
Development opportunity	0.138	4
Managerial factors	0.18	3
Subsistence factors	0.085	6

Discussion and Conclusion

As faculty member is the most important factor in success of higher education system, it is expected the university fulfills its missions via faculty development. Condon, Iverson, Manduca, & Rutz (2016) show that faculty participation in professional development activities positively affects classroom pedagogy, student learning, and the overall culture of teaching and learning in a college or university.^[16] According to Clayton and Ash (2005) when faculty members reflect on their teaching both deepens their understanding of their roles as educators and allows them to model those abilities and perspectives they want their students to develop.^[17] It can be expected that developed faculty acts well in knowledge production, knowledge distribution and knowledge application. In other words, in the

university in which its faculty members have suitable qualifications, high quality teaching is done, more knowledge is produced and better specialized services are presented. These conditions caused that university is dynamic and proceeds to creativity, innovation and entrepreneurship. In recent years, higher education has faced many challenges. Major challenges to higher education, all of which have implications for and impact the future of faculty professional development. According to Beach, Sorcinelli, Austin, & Rivard (2016) the role of faculty development professionals is an organizational "change agent" at the department and institutional levels.^[18] This study is designed with the purpose of identification and prioritization of effective factors on faculty development and the interviews are semi-structured with 15 authorities and academic experts and 11 factors were identified as main factors on faculty development in and based on their consistency were divided into two general types of personal and organizational factors. Personal factors refer to the conditions that associated to faculty members themselves. Personality factors, scientific background of faculty member, achievement motivation, professional commitment and responsibility are the most important Personal factors with more influence on faculty development. A faculty member with dynamic personality and high achievement motivation and responsibility to his capabilities attempts more for professional qualifications development.

Organizational factors refer to the conditions provided for facilitation of development of faculty members in activities of faculty and from university and higher education system. Based on the results of the study, some factors including academic culture, job improvement system, development opportunity, structural factors, management supports and subsistence factors are the most important organizational factors effective on development of faculty members.

This study is carried out within an institution; however the results are somewhat usable in other institutions. Based on the results of this study, it is proposed to the managers and authorities to have comprehensive views to development plans of faculty members and instead of considering the educational

workshops and studies opportunities, faculty development can be provided. As faculty development is a self-regulating flow, providing the conditions of development can help the development of capabilities of faculty members. It is proposed to other researchers to investigate the effect of each of the identified factors on faculty development.

References

1. Camblin LD, Steger JA. Rethinking faculty development. *Higher Education*. 2000 Jan 1;39(1):1-8.
2. Baldwin RG. Variety and Productivity in Faculty Careers. *New Directions for Higher Education*. 1983 Mar;41:63-79.
3. Miller, R. I. *Developing Programs for Faculty Evaluation*, Jossey-Bass, San Francisco. 1974.
4. Nicholls G. Professional development, teaching, and lifelong learning: the implications for higher education. *International journal of lifelong education*. 2000 Jul 1;19(4):370-7.
5. Grant M. Faculty development in community colleges: A model for Part-time faculty, to improve the academy: Resources for faculty. *Instructional and Organizational Development*. 2005;23(6):122-31.
6. Lieberman JM, Wilkins EA. The professional development pathways model: From policy to practice. *Kappa Delta Pi Record*. 2006 Apr 1;42(3):124-8.
7. Grant MR, Keim MC. Faculty development in publicly supported two-year colleges. *Community College Journal of Research & Practice*. 2002 Dec 1;26(10):793-807.
8. Elmore RF. Bridging the gap between standards and achievement: The imperative for professional development in education. *Secondary lenses on learning participant book: Team leadership for mathematics in middle and high schools*. 2002:313-44.
9. Bredeson PV. The architecture of professional development: Materials, messages and meaning. *International journal of educational research*. 2002 Jan 1;37(8):661-75.
10. Gitlin SD, Yuan Z, Little RJ, Todd III RF. Factors that influence successful training and faculty career development in hematology/oncology patient-oriented clinical research. *Journal of Cancer Education*. 2005 Jun 1;20(2):72-8.
11. Newland MC, Newland JR, Steele DJ, Lough DR, Mccurdy FA. Experience with a program of faculty development. *Medical Teacher*. 2003 Jan 1;25(2):207-9.
12. King H. Continuing Professional Development in Higher Education: what do academics do?. *Planet*. 2004 Dec 1;13(1):26-9.
13. Creswell JW, Clark VL. *Designing and conducting mixed methods research*. Sage publications; 2017 Aug 31.
14. Palinkas LA, Horwitz SM, Green CA, Wisdom JP, Duan N, Hoagwood K. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and policy in mental health and mental health services research*. 2015 Sep 1;42(5):533-44.
15. Holloway, I. and Wheeler, S. *Qualitative Research in Nursing and Healthcare*, 3rd Edition, Wiley-Blackwell, West Sussex, 2015.
16. Condon W, Iverson ER, Manduca CA, Rutz C, Willett G. *Faculty development and student learning: Assessing the connections*. Indiana University Press; 2016 Feb 15.
17. Clayton P, Ash S. Reflection as a key component in faculty development. *On the Horizon*. 2005 Sep 1;13(3):161-9.
18. Beach AL, Sorcinelli MD, Austin AE, Rivard JK. *Faculty development in the age of evidence: Current practices, future imperatives*. Stylus Publishing, LLC; 2016 Nov 2.