Abstract

In any organization, the people are the most important resource. Current literature indicates that faculty members in organizations with mentoring programs are more likely to be successful in their academic careers. Mentoring provides direction for both experienced and inexperienced faculty members as they progress as educators and scholars. A successful faculty mentoring program benefits the protégé, the mentor, the organization, and the students. The roles of the organization, the mentor, and the protégé are discussed along with desirable characteristics of mentoring programs.

Introduction

Institutions which develop mentoring programs are addressing a critical need for their long-term success. As one would expect, each institution has its own unique circumstances, so unique mentoring models or programs are designed to satisfy the local needs.

Any department, school, college, or university will achieve excellence only to the extent that its most valuable resource achieves excellence. The most valuable resource is the faculty. Each faculty member must perform at his or her maximum intellectual capability if the institution is to be counted among those which achieve academic excellence.

Review of the literature

Articles in the literature on faculty mentoring in engineering or engineering technology are rare or non-existent. There are, however, numerous articles which indicate that a well-planned and executed mentoring program for new, young faculty will make an important contribution to the success of the individuals and thence to the success of the institution. Queralt’s article cited below provides strong support for the notion that mentorship is good.

College and university faculty and administrators in the state of Florida were surveyed by questionnaire, and Queralt (5) reported the results. The 287 questionnaire responses were divided into two categories – respondents who claimed to have had mentoring and respondents who claimed to not have had mentoring. The research project was designed to determine whether or not mentors have a significant influence on the level of career achievement of university faculty and administrators.

Hypotheses were formulated and tested by analysis of the data. It was shown that academics who had mentoring performed or achieved at significantly higher levels in all areas of activity covered by the questionnaire than did those who did not have mentoring. Areas of activity
included in the study were:

- Publications: books, edited readings, chapters in books, articles in professional journals, etc.
- Grants: number of competitive grants at all levels of funding as well as non-competitive grants
- Leadership: years at local, state, regional, national or international levels
- Academic rank or administrative position
- Yearly gross income from professional activities
- Job satisfaction
- Career satisfaction

Other findings from Queralt’s study were:

- Early mentoring is preferable
- Lasting mentorship is good
- Multiple mentorships appear to be beneficial
- Common interests between mentor and protégé promote the relationship
- Mentor assignment may produce better results than mentor choosing

**Mentoring models**

Montclair State University has a New Faculty Program reported on by Pierce (4) that has a strong faculty mentoring component. The program is required of all new tenure track faculty. One component of the program is weekly cohort meetings designed to acquaint the new faculty with various administrative and support services as well as to explore and examine important aspects of teaching and career development.

A second component of the program is a weekly meeting with a resource person, i.e., mentor, usually a tenured, experienced professor, in which the new faculty member gets input first-hand about pertinent topics such as teaching strategies, curriculum development, and research projects. A valuable outcome for the protégé of this relationship with the mentor, is the sense of security in knowing there is someone to turn to should a problem arise.

Information about the level of success of this required program at Montclair State is not provided, but the author does offer guidelines and recommendations that should be noted:

1. Appoint an effective director of the program who has autonomy and who can maintain a close working relationship with administration and resource faculty.
2. The program must address the needs and concerns of new faculty.
3. Capable and committed resource faculty must be selected to serve as mentors, and their responsibilities must be made clear to them.
4. The mentoring program must protect the integrity of the curriculum.

The mentoring program at the State University of New York (SUNY) at Albany is written about by Xu and Newman (6). This program is required of all new faculty and is more informal and loosely structured than the Montclair State program. The objectives of the New Faculty Mentoring Program at SUNY Albany are:
1) To help new faculty get acquainted with the campus as a place to work and to become familiar with its academic environment,

2) To assist new faculty in building their teaching career in the academic institution through the help of experienced faculty members, and

3) To help new faculty advance toward tenure by becoming actively involved in professional activities including research, professional service, and the establishment of a professional identity.

The program consists of assigning an experienced faculty member as the mentor for a new faculty member. Assignments are made according to common interests to the extent that this is possible. Beyond this, there is no structure. The mentor-protégé dyads meet on a schedule suitable to them and for whatever purpose they choose.

To evaluate the effectiveness of the SUNY Albany program, separate questionnaires were developed for the mentors and protégés. Analysis of the questionnaire responses revealed the following:

- A large majority of the mentor-protégé dyads met on an irregular basis each semester.
- The number of meetings was typically less than 10.
- The topics for the meetings generally were instructional techniques, research development, university and departmental idiosyncrasies, professional development, and various practical issues.

The SUNY Albany program was deemed a success. It was particularly helpful for young faculty just starting their academic careers. Mentors and protégés agreed that there is need for basic structure, content, and guidelines for the dyad meetings. Mentors and protégés were pleased with assigned mentors as long as the assignments were made according to similarity of interests.

Elmes-Crahall (2) writes about the Wilkes University voluntary mentoring program for new faculty. It consists of inviting experienced faculty members to volunteer to serve as mentors and then providing a list of the volunteers to new faculty members who are responsible to choose a mentor from the list. The new faculty member is expected to take the initiative to make contact with the mentor he or she has selected to arrange the initial meeting.

The program is completely unstructured. The mentor-protégé meetings occur when and for whatever reason(s) they agree to. In addition, the relationship continues as long as they want it to. No information is offered about the effectiveness of the program.

**The experiences of Assistant Professor “Albert”**

Albert (not his real name) left the semiconductor industry to become an academician. The following is a true account of his experiences with and without mentoring.

**Albert’s experience without mentoring:** Albert joined an institution as the first full-time assistant professor teaching upper division courses in an Engineering Technology department. There were two full-time teachers in the lower division (one instructor, one tenured assistant)
who did not support the administration’s decision to offer upper division courses, and therefore requested not to teach any of those courses. The mood was somewhat hostile. For example, Albert could not use equipment from “their” lab. Most of the upper division courses had never been taught, and the curriculum was modeled after a program at another university. Albert was not aware of the situation in the department when he joined.

Mentoring was non-existent. Albert’s department head, whose expertise was in a different discipline, encouraged involvement in ASEE, but he could not function as a mentor. Albert’s first publication was a collaboration with another junior faculty member. Albert’s role was to be the proofreader. It was rumored, that joint authorship was “less valuable” than solo efforts and that refereed journal publications were all that really counted.

There were no guidelines or recommendations for achieving tenure. Albert wrote a few papers for ASEE, but believed that they would not count significantly toward building his vita. At the beginning of his second year, he was assigned the “in-charge” role of the program. He assumed this would make his case for promotion and tenure. It is an industry belief that if you do what is good for the company you will be rewarded. By taking this leadership role, Albert felt he was providing service to the university. The administrative duties occupied most of his time, so there was little time left for publication, and it was clear that publications were still the main criteria. Albert didn’t know what to write about anyway, so he avoided it. The closest thing to a mentor was an industry retiree who had been teaching as an instructor in a different discipline for about five years. He encouraged Albert, and provided sound advice on classroom activities, but as an instructor, he was not involved in publishing or the tenure process.

Tenure reviews were conducted every two years. Many assistant professors left or failed to be renewed after the fourth or sixth (final) year. Many were “counseled out”. Albert’s contract was renewed at the fourth year review, but the review was very discouraging. Convinced that he would not be tenured, Albert left before the beginning of his penultimate year.

**Albert’s experience with mentoring:** Albert joined another university the following semester and was immediately impressed by the structure of the promotion and tenure process. The department head provided a listing of recommended activities for the first three years that would lead to achieving tenure. Other faculty suggested places to publish and even some topics. Many were involved in leadership roles in divisions of ASEE. Albert formed a partnership with two more experienced junior faculty members and collaborated on two papers.

After completing his second year, he developed an informal mentor-protégé relationship with a nearly tenured faculty member. The two were from different campuses, so the relationship formed slowly. After faculty meetings, they would discuss problems or consider ideas for papers. When Albert needed to “blow off steam”, he had someone to call. In some cases, just talking about the problem helped. In others, the mentor suggested remedies. He kept Albert from going down paths which might offend those responsible for making tenure decisions. Once he (i.e., the mentor) achieved tenure, he could raise delicate issues in meetings that junior faculty should avoid this was referred to as “wearing the shield”. In Albert’s case, the mentor drove him to write, and provided excellent feedback and advice.
The mentor also benefited from the relationship. He had an extra body to divide the work, and they collaborated on several papers. They shared teaching resources and techniques. The mentor could “blow off steam”, too. Albert has now been promoted and tenured, and he feels that it is his turn to offer his services as a mentor to new junior faculty members.

**Initiating a mentoring program**

Successful mentoring programs operate somewhere between “strictly formal” and “let it happen”. Too much formalization tends to compromise some of the mentor-protégé relationship characteristics whereas too little formalization leads to the very real possibility that the mentor-protégé relationship will not develop at all.

Mentor-protégé relationships have a natural life cycle of their own. As the relationship lengthens, the sphere of influence the mentor has over the protégé decreases. Mentor-protégé relationships typically go through the following stages: introduction, mutual trust building, teaching and sharing, less need for services of the mentor, dissolution of the relationship as mentor-protégé.

A solution for the apparent dilemma of formal versus informal mentoring is a multi-faceted program that provides the needed support at appropriate levels, yet is flexible enough to address challenges that arise. The program must contain a method to accomplish early mentoring and the establishment of mentor-protégé relationships that can be sustained over time. A three-phase program is suggested where early mentoring is accomplished through assigned mentor-protégé dyads (Phase I), teaching and sharing is emphasized (Phase II) and progression into the peer/colleague relationship (Phase III).

**Phase I:** To assure that early mentoring takes place, all new faculty should be assigned a mentor for a relatively short life cycle (1 to 2 years). Mentors should be experienced, tenured faculty, who are capable of providing adequate professional development input for the protégé. This relationship should be monitored and appropriate action taken if mismatches are apparent. Assignment and compatibility checking should be handled by a “mentor program director” rather than the department administration, since care must be taken to not co-mingle mentoring and assessment of the new faculty member’s progress toward promotion.

**Phase II:** During the second phase of the mentoring process the emphasis should be on teaching, sharing of techniques, and collaboration on professional development projects. Mentor-protégé teams should be encouraged to participate in workshops and seminars that will increase their effectiveness individually and as team members. Since time has gone by and the protégé is now working on his or her own, there is less need for the services of the mentor. This is a very critical part of the relationship, where the mutual trust, respect and friendship developed earlier become the ruling factors. The mentor should continue to provide sponsorship, support and protection to the extent appropriate for the needs of the protégé. This stage of the mentoring process can provide opportunities for mutual collaboration that enhances both the mentor and the protégé’s professional development. The mentor and protégé should self-evaluate the results of this phase of the program and decide how or if the mentor-protégé relationship should continue. The normal time frame for this decision would be the promotion/tenure stage of the protégé’s
Phase III: Success in the promotion and tenure process does not necessarily end the need for a mentor, nor does it define the time at which an educator discontinues further development. Becoming a mentor for junior faculty should be a desirable goal for all faculty members, and one strongly encouraged by the institutions’ administration. As the protégés mature into the role of tenured faculty and mentors, they provide feedback on the process to the incoming group of protégés. The person who has just had a successful tenure/promotion experience should be the best “cheer leader” for the next group of new faculty. Mentoring new protégés offers the newly tenured faculty member the opportunity to establish a peer level mentoring relationship with their former mentor(s) that can prove essential to a successful program and institution.

Conclusion

Academic institutions provide such a diverse set of circumstances for entering educators, that a “one size fits all” solution is not realistic. However, numerous articles in the literature indicate that institutions that have a mentoring program in place experience a higher rate of faculty performance and satisfaction. The underlying benefit to the teaching faculty of having an official mentoring program is that it presents to the new faculty the image that the system has a genuine interest in supporting and nurturing them. The attitude of “sink or swim” is not acceptable if the goal is to recruit and retain the best teaching faculty for engineering and engineering technology.

References


Biographical Information

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