

## **“The Spaghetti Factor” – A Peer Leadership Model for the “Sticking Together” of Untenured Faculty Prior to Their Tenure Decision**

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### **Abstract**

New faculty members join academia with great desire and hope to make higher education their life long vocation. Upon entering the halls of ivy, they quickly realize the mutual requirements of professional development, teaching excellence and community/university service. The pressures and challenges of meeting the various expectations can easily leave new faculty overwhelmed with feelings of anxiety, frustration, and even a sense of inadequacy in their area of expertise. These sentiments coupled with the unrelenting demands on all faculty lead to a sense of isolation and abandonment within the academic community.

“The Spaghetti Factor”, is a peer leadership model that is being successfully implemented at the University of Pittsburgh at Johnstown. It serves to address the multitude of concerns and questions of new faculty members. It accomplishes this primarily with peer mentoring by “senior” untenured faculty who are near the tenure decision time in their academic career. By working together through this mentoring, new faculty are able to “stick together” in such a way that everyone is on track to achieve tenure in a more efficient and satisfying way than working at it individually with no interaction.

### **Introduction**

When new faculty members are hired and enter the tenure process, their success or failure depends on a number of factors. Several of the most important factors include their personal motivation and attitude toward the requirements of a career in academia, the promotion and tenure philosophy at their institution, and the support of and interaction with colleagues they will be working with. At the University of Pittsburgh at Johnstown (UPJ) a peer leadership model has been used to create an atmosphere of cooperation and collaboration between the untenured engineering technology faculty members to assist each other through the tenure process.

An undergraduate teaching college of the University of Pittsburgh, UPJ offers four-year degrees in Civil, Electrical and Mechanical Engineering Technology. Due to recent retirements and personnel changes, the Division of Engineering Technology currently has six faculty members in the tenure stream, representing 43% of the faculty. Of these six, four have three years or less service. In addition, it has been close to 15 years since a current member of the tenured faculty has been through the tenure process. As at most institutions, the mechanics of the tenure process have not changed considerably, but the requirements and expectations have. Thus, it has been difficult for the tenured faculty to truly mentor the new faculty through all aspects of the tenure process. As a result,

untenured peers, further along in the tenure process, have stepped forward to provide leadership and guidance for their newer untenured colleagues.

### **Peer Mentoring and Leadership**

Peer mentoring and leadership is the “pasta” of the model discussed in this paper. The guidance of a peer is particularly vital for first-time faculty entering academia from a business environment. In industry, tasks and time frames are strictly defined by either superiors or the industry in which they practice. In the academic realm, decisions pertaining to how tenure requirements are fulfilled are often left to individual interpretation. Successful achievement of tenure can seem elusive to someone inexperienced with the process. For a faculty member new to teaching there are many unknowns. “The Spaghetti Factor’s” primary ingredients consist of providing a welcoming environment for new faculty members, building interpersonal relationships, meeting and sharing experiences on teaching, advising on professional development and service activities, mentoring on writing abstracts and papers, suggesting educational conferences and workshops to attend as well as other “lessons learned” which greatly benefit the new faculty member. Supportive and understanding peers during the first few years are invaluable for new faculty members and, who better to provide guidance and lead the new faculty than someone just a few steps ahead in the process.

People define leadership in many different ways. According to Kathy Klock, Education Program Officer of the Bill and Melinda Gates Foundation, “Leadership is the ability to imagine the possibilities and make them happen. It is stepping forward and encouraging and coaching others to higher levels. It is listening, communicating, collaborating, and building a common focus, it is creating a magical organization where everyone is valued and all talents are used to their fullest.”<sup>1</sup> This definition of leadership best describes the essence of leadership used in “The Spaghetti Factor,” where peers have stepped forward to encourage, guide and lead others toward success in the tenure process. The peer leadership model implemented by the untenured faculty at UPJ has created an environment of collaboration and cooperation, rather than competition.

This cooperative attitude has been passed down from each tenure stream faculty member to the next. It serves as a vital component of the model. As issues arise for the untenured faculty, the advice of peers, who are farther along the tenure stream, is easily sought and willingly shared. The cohesiveness of the new strands of “spaghetti” at UPJ is especially important since the senior tenured faculty are all quite removed from the tenure process. In fact, the tenured faculty and division director often refer the untenured faculty to those further along in the tenure process regarding questions related to the tenure process and dossier format.

In discussing the implementation and application of “The Spaghetti Factor” as a peer leadership model, it is useful to consider how untenured faculty members who are further along in the tenure process have mentored the newer faculty on the details of the tenure process and other important issues related to teaching, professional development and service. The mentoring is often initiated by the untenured faculty asking specific questions regarding the requirements of the contract renewal process, getting feedback

and advice on attending teaching workshops and professional conferences, sharing experiences writing successful ASEE papers and co-authoring papers, reviewing and commenting on draft papers, and getting feedback on experiences serving on various university committees. In other cases, because of the relationships that have developed between untenured faculty, unsolicited advice, guidance and suggestions have been shared, knowing the interests and needs of others regarding the tenure requirements.

### **Contract Renewal and Tenure Procedures**

One of the main areas in which the untenured faculty have served as leaders for their untenured peers is by sharing their experiences regarding the procedures for contract renewal and tenure review. Discussions between the untenured faculty on dates, procedures and the timeline of the tenure process are common. At the University of Pittsburgh, tenure stream faculty must complete a contract renewal evaluation at the completion of their first year. The primary components of the renewal dossier are development of a teaching philosophy, the curriculum vitae (CV) and a plan and schedule for professional development activities to achieve tenure. The first author received guidance on preparing the renewal dossier from a former untenured faculty member who left for industry before tenure review. This guidance has been passed on to each subsequent untenured faculty member preparing for renewal. For each untenured faculty member, the guidance may have focused on different aspects of the dossier more than others. For one, the guidance was most needed on developing their teaching philosophy and putting it into words. For another, the plan and schedule for professional development was where guidance was most needed. New faculty from industry may be used to preparing a resume, but may need guidance in preparing their CV. As tenure review progresses for the group, it is expected the organization, format and contents of the tenure dossiers will be shared to help those that follow prepare their dossiers for tenure review more efficiently. These willing offers and acceptance of guidance between the untenured faculty build trust, respect, friendship and alliances based on cooperation.

### **Teaching**

Guidance regarding teaching is available from both tenured and untenured faculty. All of the untenured faculty have sought the advice of senior tenured faculty one time or another regarding their teaching. Support from the tenured faculty regarding teaching at an undergraduate institution like UPJ is probably most easily provided by senior faculty because of their years of experience. Most have usually mastered how to teach the most difficult concepts. They have dealt with student problems such as skipping class and cheating. From years of assigning homework and giving exams, they have developed an efficient method of grading and evaluating student performance. Their advice should be sought by all new faculty hoping to become excellent teachers.

Where untenured faculty can most help each other in their teaching is by sharing information obtained at various teaching workshops available for new engineering educators and education related conferences. The concepts covered at these workshops and conferences can greatly improve teaching and sharing the workshop notes and recommending attendance at such activities is one way untenured faculty can lead their peers to better teaching, and better teaching evaluations. Teaming together to attend a

workshop may also work to the favor of being selected since the workshop organizers may be more interested in faculty from institutions where a strong interest in the workshop exists.

One example of how cooperation between faculty members in the different disciplines has helped untenured faculty develop their teaching at UPJ resulted from the staggered nature in which the new faculty were hired. Limited funds are available each year for laboratory equipment. New faculty members, however, have been able to purchase new equipment for their laboratory through the cooperation of the different departments. Currently the civil, mechanical and electrical departments pool their money and purchase equipment for laboratory most in need. This has allowed each untenured faculty member to get a significant amount of new laboratory equipment at one time, rather than making smaller purchases each year to get all the needed equipment. This has succeeded because each one knows that his or her turn will come and no one has been overly burdened by having to wait a year.

### **Professional Development**

At an undergraduate teaching institution, the professional development requirements do not focus on research as they would at a research university. However, activities that contribute to the scholarship of the engineering education profession and the specific engineering disciplines are expected for attainment of tenure. Senior tenured faculty have provided initial guidance to the new faculty on preparing scholarly papers for engineering education related conferences.<sup>2-7</sup> In some cases, these papers were co-authored by the new faculty member and the tenured faculty,<sup>2, 4, 6-7</sup> while in others, the tenured faculty member suggested an idea that the new faculty member tried in class and prepared a paper discussing the idea and outcome.<sup>3, 5</sup> In all cases, guidance in preparing that first publication is essential and tenured faculty may be most able to direct new faculty toward that first paper. After preparing that first paper, the new faculty all experienced the same revelation; they can write a conference paper and get it accepted. After attending their first ASEE national conference, each new faculty member realized many ideas and opportunities for preparing papers of interest to the different divisions of ASEE.

At UPJ, untenured faculty members have collaborated on education related papers and have reviewed abstracts for each other. Peers have suggested which division might be most appropriate for a given paper. There also has been collaboration with other untenured faculty outside of the engineering technology division.

Professional development in the technical disciplines may be more difficult for untenured faculty at small teaching schools. Research possibilities are limited due to the heavy teaching loads and the lack of graduate students and facilities. As a result, the advice of tenured faculty may be significant in preparing appropriate technical papers prior to tenure review. Unfortunately at UPJ, the tenured faculty received tenure a number of years ago when the expectations were different, resulting in many having limited experience publishing within their technical disciplines. As a result, the untenured faculty members have had to seek out scholarly publishing opportunities on their own.

Some with consulting experience where technical conference papers were encouraged as a marketing tool, may be able to prepare papers based on prior consulting or summer consulting experiences. Others, mainly in mechanical and electrical engineering technology may face issues regarding publishing proprietary information. One way untenured faculty can help each other regarding technical publications is to know the areas of expertise and interest of their peers and keep an eye open for appropriate conferences or publishing opportunities. For engineering technology faculty, the Journal of Engineering Technology provides a respected outlet for application based technical papers. Sharing this information is one way untenured faculty can lead their peers to various professional development opportunities within their technical discipline.

### **Service Activities**

Service activities can consist of department and university committees, professional society activities and local outreach or community organizations. One area where both tenured and untenured faculty can assist and guide new faculty is in selecting meaningful service activities. At UPJ, as at many institutions, committee assignments for new faculty are usually light and are intended to get new faculty involved, but not overwhelmed with service commitments. An untenured faculty member serving on or chairing committees that other untenured faculty have recently served on or chaired is useful since someone is nearby who can share their experiences and provide advice on procedures related to that committee. This situation has occurred for several of the authors and has been quite beneficial.

### **Tenure as a Team Effort**

One reason for the success of the peer leadership model at UPJ is that the untenured faculty are functioning as a team with the objective of not only getting each individual successfully through the tenure process, but also creating an effective educational environment for the students.<sup>8-9</sup> In this case, the success is not just educating the students for their chosen degrees, but also keeping stability in the faculty by working together so that everyone successfully attains tenure. At some institutions success in the tenure process relies more on research collaborations with other faculty in one's department, specialty or research group.<sup>10</sup> At smaller teaching schools, a successful program needs faculty who work well together in achieving the institution's educational objectives.

One factor in developing an effective team approach at UPJ relates to the ABET requirement for engineering technology faculty to have at least three years of industrial experience.<sup>11</sup> In most cases, success in industry requires effective teamwork to achieve the objectives of the organization.<sup>8-9</sup> Faculty experiences with teams in industry not only helps untenured faculty gravitate toward working with others as a team in academia, it also reinforces the appreciation of the efforts of team members in achieving team and individual goals.

Although the peer leadership model has relied heavily on untenured faculty supporting each other, several senior level tenured faculty members have also stepped forward to get new faculty off to a good start. This has been most noticeable in guiding new faculty to

write their first ASEE conference paper. The division chair has been especially supportive of the untenured faculty working to make sure they receive guidance from either himself, tenured faculty, or other untenured faculty. Those tenured faculty members who have contributed most are those active in ASEE, those active in discipline specific professional society activities, and those pursuing promotion to full professor. One area where all untenured faculty members have turned to tenured faculty for guidance is in the advising of students regarding registration for courses, and department requirements and procedures for students. The level of experience of the tenured faculty in this area is not available from the untenured peers and the untenured faculty realize this.

### **Attitude and Environment**

When considering the peer-mentoring model at University of Pittsburgh at Johnstown, two important attributes that make the program successful are attitude and environment. “The Spaghetti Factor” – A Peer Leadership Model for “Sticking Together” would not be a success without the positive, supportive attitude that exists at UPJ. The tenured and untenured faculty members, as well as the support staff, love what they do. They have a positive outlook and provide a level of support and concern that make UPJ a great place to work. While it is unrealistic to expect 100% cooperation at all times and in all ways, a positive, collaborative attitude is infectious and spreads quickly. The small size of the program and the common age, interests, and family backgrounds of the untenured faculty members also help create an environment that bonds the individuals in ways beyond those of merely being professional colleagues.

One environmental aspect that facilitates open communication and shared ideas between faculty members is the clustering of offices. The close proximity allows for easy and unsolicited interaction. Very often discussions beginning in one office become even more insightful as office “neighbors” join in. The small size also encourages unison within the Division of Engineering Technology. The close proximity of offices and common goals create cross-discipline relationships between the Civil, Electrical, and Mechanical faculty. These relationships occur regardless of tenure or teaching experience. It is not unusual for a new electrical faculty member to seek the advice of a tenured mechanical professor or for a tenured professor to invite new faculty members to participate in class projects or in writing papers. At institutions where offices are not close, occasional lunch or breakfast meetings might facilitate such interactions, but much of the spontaneity may be lost. Similarly, when the number of faculty members in a college or department is large, it may be best to interact with a smaller group, perhaps within a department or specialty area. A support group or network of compatible peers may be most effective if members are suggested by a department chair, dean or senior faculty member who understands the characteristics and personalities of the individuals involved. If a department does not normally encourage this type of support network, untenured faculty members may need to ask for help in forming such a group.

In hiring new faculty, the institution and the individual need to be well matched.<sup>12</sup> A paper on recruiting and retaining good faculty was prepared based upon experiences at UPJ prior to any of the current untenured faculty coming to UPJ.<sup>12</sup> The tenured faculty

noted they came to and stayed at UPJ because their colleagues are fun to work with, are professional and create an environment that supports the educational objectives of the division.<sup>12</sup> When searching for new faculty, tenured UPJ faculty stated that one of the traits they considered most important was the ability to work as a team player with others in the division.<sup>12</sup> Those untenured at the time noted they were most concerned about the tenure process and looked for mentoring and guidance regarding the tenure requirements and professional development activities.<sup>12</sup> According to Lester A. Gerhardt in his article, *Mentors Wanted*, “New faculty members need guidance on learning the promotion and tenure metrics, how to successfully negotiate the campus climate and constituencies, on which committees to serve, and how to gain visibility in their disciplinary professional societies as well as the interdisciplinary ASEE.”<sup>13</sup> This is exactly what the untenured faculty are doing for each other through the peer leadership model at UPJ.

Another aspect that encouraged development of the peer leadership model used at UPJ resulted from the active involvement of untenured faculty on search committees for the newly hired faculty. As a result of being involved in the interview and selection process, the committee members have known the new faculty members, their background, and expertise since before they were hired and have a vested interest in seeing the new recruit succeed. The search committee members have a feeling of responsibility for the new faculty, immediately creating an unofficial support team. At larger institutions, where more tenured faculty are available to serve on search committees, untenured faculty, especially those heavily involved in research, may not be asked to serve on such committees. Faculty search committees are extremely important since they involve decisions that will shape the future of the program and institution for years to come.

### **Application at other Institutions**

While the model presented is succeeding at a small university, “The Spaghetti Factor” can be applied to any size college. Alliances and peer leaders are the key. At a large university where disciplines are departmentalized, seek out members from your own, as well as from other departments or even different schools. Cross-discipline relationships lend an added perspective to situations that may arise as a new faculty member. An individual may in fact have different peer mentors for different aspects of the tenure process. They may look to one colleague for guidance on professional development activities, another regarding service and committee work, and another for support in developing teaching proficiency. The process necessary for successful attainment of tenure is an endeavor frightening to most. Most persons in the tenure stream are willing to share their experiences and insights on tenure requirements and procedures.

### **Conclusions**

“The Spaghetti Factor,” a peer mentoring program for untenured engineering technology faculty at the University of Pittsburgh at Johnstown has been implemented to help guide new faculty through the tenure stream. Collaboration and cooperation between the untenured faculty have been emphasized. The first candidate has just successfully completed the tenure review process and four of the other untenured faculty have all successfully gone through contract renewal. The model appears to be working favorably, as evidenced by positive annual reviews provided by the division director. Two very

positive outcomes from utilizing the “The Spaghetti Factor” have been observed at UPJ. First, a genuine spirit of mutual trust and respect has developed among all the new faculty. This was especially important since the new faculty are in different departments in the Engineering Technology Division. The second significant outcome is that an environment of cooperation rather than competition exists between the new faculty. The encounters of new faculty with each other go far beyond the “transactional” phase where academic information is simply exchanged. Authentic “transformational” experiences occur in which new faculty have become open to the ideas, suggestions and input from their peers. The new faculty have developed a communal sense of being in the tenure process together. Informally they established a mantra of “Everybody gets tenure”. They can count on each other for input on numerous issues while addressing mutual concerns that rightfully exist among new faculty.

It is hoped that the details of how the “The Spaghetti Factor” worked at UPJ and the additional suggestions presented illustrate how it can be successfully implemented or adapted by untenured faculty at other colleges and universities. As tenure reviews continue over the coming years at UPJ, it is hoped that the efforts of all involved will have succeeded in helping new faculty accomplish what they are striving for, namely, promotion and tenure within the university community.

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