# **Building Industrial Partnerships and Business Relationships: Early Career Interventions for Professional Growth and Learning-Centered Classrooms**

## Beverly Davis Purdue University

#### Abstract

At Purdue University, a new president has redirected an entire university and this transformation will alter the way most non-tenured faculty progress through the tenure process. The new triad of Learning, Engagement, and Discovery has replaced the historical Teaching, Service, and Research pyramid that so many of us have come to recognize as the all in all measure of success for faculty in higher education. Because Purdue University has stepped up to the plate in this change, there may be lessons for other nontenured faculty who may face the same uncertainty that Purdue University non-tenured faculty have faced in the last several months.

The Purdue University Strategic Planning Document describes this trilogy:

- 1. Learning can be described as distributing knowledge to an audience of peers and citizens through a great diversity of academic literature and professional activities, and to student learners through a variety of text materials and instructional settings. In its libraries and other archives, the University serves as the repository and facilitator of access to a rich accumulation of human information, knowledge and wisdom.
- 2. Discovery is grounded in the most theoretical, empirical and applied methods. The University's programs of research, scholarship, and creative endeavor expand the realm of knowledge across the full range of academic disciplines.
- 3. Engagement is through exchange. Through its programs of knowledge exchange and application, the university helps put knowledge to work in the solution of a variety of technical and social problems.

This paper will define Learning, Engagement, and Discovery and offer tips on how one can proactively step outside of the box and see potential opportunities before all universities make this change. As the authors of the book, *The University in Transformation: Global Perspectives on the Futures of the University*, discuss, the traditional university is under challenge from various forces worldwide and the future of the university is unknown at this point (7). What is easy to recognize is that the traditional university is in transformation and it is very unlikely that it will look the same in the future as it does today. This new trilogy of Learning, Discovery, and Engagement could be the necessary ingredients for success in the 21<sup>st</sup> century University. I will share personal experiences with the engagement piece that involves strategically building industrial partnerships and business relationships that can benefit not only your professional career but how the element of engagement can lead to more learning in the classroom and more discovery opportunities.

I. My Journey Down the Tenure-Track

I started the tenure process focusing on the traditional triad of teaching, service, and research. In my second year, Purdue University secured a new president. This president enlarged the triad and it was redefined as learning, engagement, and discovery. What I found as I absorbed this new university change, is that the traditional university as a whole is under challenge from various forces worldwide. Technology, globilization and virtualization are just few of the factors that will help define the university of the future. Higher education is producing a product of insufficient quality to meet the competitive demands of global labor markets (7). The educational institutions inherited from the welfare state era have not been organized to produce students who possess market-ready skills. Like their counterparts in government, and business,

educators are taking the need for continuous improvement seriously (3). These improvements are systemwide undertakings meant to reshape school systems for a global knowledge/information age (3). Organizations that don't continually improve won't be around for long as there will be others waiting to step in to fill the opportunity gap. This is as true for education as it is for business. The new Purdue strategic plan states that Purdue University, as a great academic institution, pursues excellence in all its endeavors. The plan also champions continuous improvement. This is the type of thinking needed for future success in higher education. I have learned to embrace it as the future direction of higher education and would like to share this with other educators who may be facing this type of change in their futures.

#### II. Learning

Simply put, the American educational system is not keeping pace with the fast changing world (1). Rowan Gibson, *Rethinking the Future*, reminds us of author Howard Gardner's warnings that the prevalent lecturing, emphasis on such things as drill and decontextualized materials, found in the classrooms are the same activities one could find if they stepped into the classroom in 1900. In fact, many recent news items have reported increasing boredom in the typical classroom for American students. John Kotter, a leading management theorist, warned that in absence of real competition, crisis, and bold leadership, higher education will have the same problems ten years from now that we have today (2). At Purdue University, a new president and a new strategic plan has been implemented with goal of making Purdue a world leader in higher education and to reach the "next level" or "pre-eminence." Dr. Martin Jischke knows that to lead the world in basic and applied sciences and engineering and to improve society, programs of learning must be recognized for the quality, relevance, depth, and scope. With the direction on new leadership, Purdue University's new definition of learning is:

Learning can be described as distributing knowledge to an audience of peers and citizens through a great diversity of academic literature and professional activities, and to student learners through a variety of text materials and instructional settings. In its libraries and other archives, the University serves as the repository and facilitator of access to a rich accumulation of human information, knowledge and wisdom (4).

Teaching was defined in the past as:

Teaching is evaluated on the basis of two dimensions: <u>instructional delivery</u> and <u>instructional development</u>. Although the degree of achievement in the two dimensions will vary, substantial accomplishment in each dimension is expected (5).

Purdue University promotes and champions learning by providing a variety of instructional settings where students and faculty can share and create new knowledge (4). This means faculty will be challenged to find ways to allow for student learning. Today's students have been criticized as being apathetic and bored with school. Students today have a spectator mentality and a desire to be entertained (6). The principle reason for today's academic deficiency is that mass culture has undermined young people's desire to learn. These students who describe themselves as bored will be powerless to change the passive learning paradigm that has defined the American educational system for years (6). Learning pyramids will teach us that the most effective learning takes place in an interactive setting. John Kotter has said that a major issue for all educators will be to help students desire to learn more, help students learn how to learn, and to help students learn to adapt to changing circumstances (2). We are living in a different time and the factory model of teaching needs to be left behind with the Industrial Age. Learning environments demand more from educators who must encourage collaborative learning, critical and creative thinking, and the ability to use technological tools creatively. Purdue encourages learner-centered educational programs that promote critical thinking, communication skills, information literacy, information technology, and methods of inquiry. The old Industrial Model of education will not accomplish this goal. The new system requires a different set of skills from faculty as facilitators and as information and knowledge managers. Faculty will become subject matter specialists and will help students learn how to turn the vast array of information available to them into usable knowledge and that knowledge into wisdom (3).

#### III. Discovery

Land Grant institutions have always emphasized their missions of service to regional entities. During World War II, many institutions took service to a new level by applying research to aid the federal government in the war effort. The research piece of faculty became more important when it was realized that federal government would finance applied research. Increasingly, faculty was expected to conduct research and publish the results. In the book, *Getting Tenure*, it is simply stated:

"The scholarship or research criterion for tenure is an important one. In theory, the research criterion often holds the same weight in the tenure decision, and the three criteria are stated to be equal. In reality, the scholarship criterion may be informally viewed as more important than the other two criteria of teaching and service, especially at major research universities. In our observations, more tenure candidates are denied tenure because of inadequate scholarship than because of failure to meet the other two criteria. In recent decades, expectations for scholarship have been rising, not just at research universities, but also at other smaller, less comprehensive universities and colleges. "Publish or perish" is not just an idle threat!" (p. 69).

Purdue's strategic plan in the area of discovery is to dominate in research and scholarship, lead in engineering, sciences, and technology-based fields, and to upgrade infrastructures and laboratories. Discovery should be meaningful and contribute to state, national and global interests. Dr. Jischke has stressed that discovery isn't only fund-based but includes discovery of pedagogy improvements. In other words, discovery can contribute to the development of continuous improvement in learning-centered classrooms (4). Gary Marx agrees with this focus and suggested that educators and their communities need to stay in touch with developments in society so they can know what knowledge and skills students need to be prepared for the future. He said:

"Educators need to capitalize on their own social and intellectual wealth. Schools develop hundreds, even thousands of relationships with students, staff, parents, other units of government, nongovernmental organizations, other universities, and the surrounding community, businesses and professional colleagues, vendors, and other groups. Each should be seen as a source of intellectual strength" (p. 44).

Discovery grounded in state, national and global interests is only born through this type of communication, collaboration, and interdisciplinary outreach. This level of knowledge exchange and application can be better defined by looking at the third leg of this triad: engagement.

#### IV. Engagement

Engagement can best be described as outreach. Engagement involves an exchange and application of knowledge that can be creatively utilized to advance our society and solve a variety of technical and social problems. Purdue's goals include leading state and societal economic and social development and contributing to the advancement of intelligence and welfare of peoples all over the world. Purdue would like to collaborate with public and private enterprises locally, nationally, and internationally and for these collaborations to serve as models for the pursuit of common objectives. One of the key strategies of engagement is the integration of Purdue's engagement initiatives with its discovery and learning missions.

In the1993 book, *Getting Tenure*, it was stated that public image is becoming more important for the university and the importance on community service will likely increase. These authors acknowledge that the area of service has only been one that is most ignored and usually put off during the tenure process. The service criterion is different in degree from the teaching and research criteria and therefore its evaluation may be the most subjective. When the university today looks at service as engagement, the rules of the game are changed. Engagement suddenly becomes very important. In Purdue's example, the goal includes working closely with alumni, patrons, community leaders, and the private sector. This suggests that the

Proceedings of the 2002 American Society for Engineering Education Annual Conference & Exposition Copyright © 2002 American Society for Engineering Education 1993 prediction has come to pass. I would like to share my experience with engagement and how this piece of the triad, when used to your benefit, will help your discovery and learning pieces as well.

### My Engagement Experiences

I teach at one of Purdue's Statewide Technology locations in South Bend/Elkhart. In 1983, the Purdue University School of Technology Statewide System was developed to form a partnership with education, industry, and government. It was created for the purpose of updating presently employed people in the skills they need to function in an ever increasing technical workplace. The statewide systems allow for unique opportunities to vary delivery of curriculum. The faculty at these statewide locations model engagement as we stay current with industrial change by consulting with local industry. This information is then integrated within the curriculum to meet unique industrial needs. In 1997 our department, Organizational Leadership, approved a 27 –credit certificate program in leadership. This certificate program was designed and approved as a direct response to industry need. I foresaw the changes in engagement expectations and developed a partnership with a company and human resource director that offers an excellent example on how tenure-track faculty can incorporate the engagement, discovery and learning triad for a successful progression.

I started working with this company and by partnering with the management there we offered an in-house educational program at their corporate headquarters. I have been making the one-hour drive out there once a week for over two years now. Not only am I engaging, I am staying current with industry and all of these experiences enhance my learner-centered classroom. Some examples of how this has benefited my tenure journey:

- Recently, the Human Resource Director and I decided to collaborate on projects that reflect our experiences. We are jointly presenting a paper at a conference in February and are working on a book about our partnership. This engagement has resulted in a collaboration that fits in the Discovery criterion.
- By teaching in industry, I stay current with business and industrial environment. I have coordinated the courses to accommodate the company needs yet I have maintained and not compromised our curriculum objectives.
- □ I have involved the Human Resource Director in participating in the formation of an Organizational Leadership Advisory Group that would be comprised of industry leaders.
- □ I have had a chance to show the company return-on-investment by allowing student projects that solve specific industry problems. This has recently received the attention of other management at the company. This industry specific and learner-centered classroom provides meaningful experiences which offers application of course materials which in turn leads to a deeper learning experience for the student.

This partnership has been a feature of a newspaper report that shared our unique partnership. It has been a beneficial partnership for all concerned. This type of outreach could very well be what your university demands from you in the future.

V. Your Personal Journey May Include Unexpected Turns

You may have read this experience that I've shared and think that it wouldn't work for you. You are at a major university and not at a statewide location and the university would never allow you to offer your courses at industry. Firstly, you will never know if this type of outreach will work for you if you don't try. The key is to form relationships in business and industry. These collaborations can benefit both you and business and industry leaders. Students benefit from the learner-centered classroom as well. Suggestions for the tenure-track faculty interested in engagement:

□ Form partnerships in business and industry that allows for the mutually beneficial application of student-centered projects in the workplace (Learning and Engagement).

- □ Open the door to potential collaborative efforts (Discovery and Engagement) with business and industry leaders by seeking out "personal advisors" or individuals that you can communicate with on a regular basis.
- □ Get your foot in the door by asking business and industry leaders to speak to your classes on a regular basis. This is a relationship that could lead to potential future collaborations (Learning, Discovery, and Engagement).

The university is changing. By the year 2020, public education in the United States will undergo a total and radical transformation, branch and root (7). The revolution will be unofficial; it will not come from any one source or group but from many sources, including new models of management and learning, concerned parents and students, private enterprise, and technology (7). The dismantling of public education has already begun. Universities will be regularly engaging in continuous improvement by continually re-evaluating short-term and long-term strategies. Purdue University's goal of excellence and pre-eminence is visionary and future-oriented. It could very well be the future of your university. The suggestion is that you begin looking at the process of learning, discovery, and engagement now so you will lead, not follow, the future changes.

#### Bibliography

- 1. Gibson, R. <u>Rethinking the future.</u> London: Nicholas Brealey Publishers, 1999.
- 2. Kotter, J. in <u>Rethinking the future.</u> Ed. Gibson, R. London: Nicholas Brealey Publishers, 1999.
- 3. Marx, G. (March-April, 2001). Educating for Tomorrow's World. <u>The Futurist.</u> Pp. 43-48.
- 4. Purdue University 2001 strategic planning document.
- 5. Purdue University Handbook for Academic Promotion and Tenure, 1995.
- 6. Ruggiero, V.R. (1998). <u>Changing attitudes: A strategy for motivating students to learn.</u> Allyn & Bacon: Boston.
- 7. <u>The university in transformation: Global perspectives on the futures of the university.</u> (2000). Ed. S. Inayatullah & J. Gidley.
- 8. Whicker, M.L., Kronenfeld, J.J., & Strickland, R.A. (1993). <u>Getting tenure</u>. Sage Publishers: Newbury Park, CA.

#### BEVERLY DAVIS

Beverly Davis is an Assistant Professor at Purdue University at South Bend/Elkhart, IN. Professor Davis teaches courses in leadership, conflict management, management of change, human behavior, training, gender and diversity, quality, and occupational safety and health. She is the Assistant Program Chair for the Manufacturing Division of ASEE and belongs to the Midwest Academy of Management, The Association/International Association of Management, the American Society for Quality, the International Society for the Exploration of Teaching Alternatives, the World Future Society, and the American Psychological Association.