

Results of 12 Years of Collaborative Effort to Change the Reward System for Teaching at Land-Grant Institutions

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Abstract

For the past 12 years, the University of Nebraska-Lincoln (UNL) has led efforts to change the reward system for teaching in 28 research-oriented institutions. The model for change, which was developed by project participants at the University of Nebraska-Lincoln, has been adapted extensively by collaborating universities. Although the model for change was accepted by most of the collaborators, not all university departments were successful in the implementation phases. Those departments and colleges of agriculture that had leaders who were dedicated to the change process tended to achieve the greatest change in the reward system for teaching. Some common changes were designating awards for teaching, and changing tenure and promotion criteria. It has become evident that the door for changing the reward system for teaching in a research-oriented environment is opening.

Introduction

In the late 1980's there was discussion at the University of Nebraska-Lincoln (UNL) and in the advisory board for the Fund for the Improvement of Post-secondary Education (FIPSE) that the reward system for teaching at land-grant universities needed adjustment. Many universities across the nation, including UNL, had adopted the German model of education in which excellence was identified through research. The German model was first adopted in the late 1870's by Johns Hopkins University in Maryland. Soon other universities across the country, including Harvard, Columbia and later the land-grant institutions, accepted this standard of excellence (Boyer 1990).

As a result, the historic tripartite mission of teaching, research and extension shifted toward research and produced an imbalance in the reward system. As more emphasis was placed on raising the prestige of the university through research, the reward system placed more value on research output.

Thus began a subtle but pervasive transformation of faculty priorities in American higher education. In many university classrooms, the quality of teaching became eroded (Glassick, Huber, Maeroff, 1997). Johnson (1997), when commenting about higher education in the United States, suggested that in the quest for institutional scholarly prestige, universities sought maximum faculty discretionary time and clear rewards for research. As a result of these events, the time was right for what happened at the University of Nebraska-Lincoln.

Developments at the University of Nebraska-Lincoln

In 1987 a group of faculty leaders from the UNL College of Agricultural Sciences and Natural Resources and the College of Arts and Sciences, with support of the UNL Teaching and Learning Center, developed a proposal to change the reward system. This proposal was sponsored by the Fund for the Improvement of Post-Secondary Education (FIPSE) for a four-year period. A model to change institutional reward systems was developed and tested by UNL project staff and participants.

The UNL model (Barrett, Narveson, Wright, Burkholder, 1994) was based on four premises:

- 1) That an effective model for changing the evaluation and reward system must involve committed faculty leadership supported from the beginning by visible administrative backing;
- 2) That to reward teaching with merit, promotion and tenure, additional evaluation data on teaching beyond student evaluations were needed;
- 3) That each department needs autonomy to structure and plan a reward system that is consistent with unit culture and values;
- 4) That the norms and values of the institution toward the teaching enterprise must change.

Since the department was identified as the locus of initial change, three influential faculty members in each participating department (typically including the department head and the promotion and tenure committee chair) were identified to lead the project. The main purpose of the project

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was to develop a reward plan that would honor teaching, research and extension equally in decisions on promotion, tenure and merit pay.

Outcomes of the University Nebraska-Lincoln Project

During the four years of the UNL FIPSE project, conversations about the reward process were held at all levels of the university. More than 30 departments in five UNL colleges developed plans to evaluate and reward teaching. In addition, an Academy of Distinguished University Teachers was formed, and a system-wide \$25,000 annual award for the outstanding teaching department was established.

About 20 smaller but highly significant actions, such as updating position descriptions to reflect teaching effort, using discretionary salary money to upgrade salaries of exceptional teachers, promoting to full professor based on outstanding teaching record, and encouraging teaching-in-a-classroom sessions for all candidates interviewing for teaching positions, also were initiated. In a follow-up study by Povlacs-Lunde and Barrett (1994), faculty were less certain that publishing was more important than teaching. Respondents were less likely to say that it was more important to publish than to teach well.

The Fund for the Improvement of Post-secondary Education (FIPSE) selected the Nebraska project, Rewarding Teaching at Research-Oriented Universities, for a national three-year dissemination effort. During those three years (1992-1995) the University of Nebraska Model for Changing the Reward System for Teaching was explored or adapted at 17 universities across the country. Building upon these experiences, colleges of agriculture joined in a collaborative effort to change reward systems.

USDA and the W.K. Kellogg Foundation Join Forces

In 1995, with USDA Higher Education Challenge grant support and assistance from the W.K. Kellogg Foundation, a major four-year effort aimed at changing the reward systems in colleges of agriculture was launched. Twelve universities participated in this effort.

Overview

Faculty and administrative teams representing 62 departments from 12 institutions attended three annual conferences on evaluating and rewarding teaching, hosted by UNL. Generally, each institution was represented by the

campus coordinator (usually a college dean), and the department chair and two faculty leaders from each of two departments. Institutions and departments participating were:

Alabama A&M University: Plant & Soil Science, English & Foreign Languages, Food Science

Clemson University: Biological Programs, Entomology, Horticulture, Forest Resources, Educational Foundations/Special Education

Cornell University: Communications

University of Idaho: Animal & Veterinary Sciences, Family & Consumer Sciences, Agricultural Economics & Rural Sociology, Microbiology, Molecular Biology, Biochemistry, Biological & Agricultural Engineering, Plant, Soil & Entomological Sciences

North Carolina A&T: Animal Sciences, Human Environment & Family Science, Agricultural Education/Economics, Natural Resources, School of Nursing, Health, Physical Education & Recreation

North Dakota State University: Agricultural Engineering, Entomology, Plant Science, Veterinary & Microbiological Sciences, Agricultural Economics, Animal & Range Sciences

Ohio State University: Agricultural Education, Food Science & Technology, Agricultural Technical Institute, Food, Agricultural & Biological Engineering

Rutgers University: Animal Science, Food Science, Agricultural Economics, Landscape Architecture, Marine & Coastal Sciences

South Dakota State University: Animal & Range Sciences, Communication Studies & Theatre, Plant Science, English, Economics, Biology/Microbiology

Texas A&M University: Animal Science, Biochemistry, Plant Pathology & Microbiology, Agricultural Economics, Agricultural Engineering, Entomology, Rangeland Ecology/Management, Wildlife & Fisheries Sciences

Texas Tech University: Agricultural Education & Communications, Plant & Soil Sciences, Agricultural & Applied Economics, Landscape Architecture, Animal Sciences/Food Technology, Range, Wildlife, Fisheries Management

Washington State University: Animal Sciences, Human Development, Apparel, Merchandising & Interior Design, Horticulture & Landscape Architecture, Entomology; Biological Systems Engineering

Selected Results

Alabama A&M University

- The institution has undergone departmental and college-wide reorganization. For the first time, a plan is underway to initiate a merit pay system.

Clemson University

- Five departments submitted plans to address evaluation and reward of teaching.

Cornell University

- The College of Agriculture and Life Sciences developed a portfolio of activities to reward teaching. Assessment of effective teaching has been enhanced, a policy statement was being advanced through the faculty senate to establish faculty expectations on what counts as excellence in teaching.

- Created and expanded the publication of teaching awards and renewed commitment to salary enhancements based on effective teaching.

University of Idaho

- With the exception of one department, all participants have documented changes in teaching improvement enhancement and reward activities.

- The College of Agriculture is the only college where a rewarding teaching system is in place. However, the central administration is aware of the program, and is offering support to the units making plans to change the reward system.

North Carolina A&T State University

- Considerable progress has been made in elevating the importance of the quality of teaching in the university community although no departmental plans have been submitted.

- Faculty who participated in the project have been strong leaders for instituting an improved faculty evaluation and performance process from the grassroots level.

North Dakota State University

- Five departments have written teaching reward plans, and numerous faculty members participated in national conferences as presenters and panelists.

Rutgers University

- Departmental plans to reward teaching were submitted by the Food Science, Animal Science, Marine and Coastal Sciences departments.

South Dakota State University

- Understanding of and enthusiastic response to the need for formative faculty evaluation including peer review and mentoring.

- An awareness of possibilities for redefinition of scholarship.

Texas A&M University

- A conference was held to expand the project to several other colleges, including the College of Arts & Sciences and the College of Business.

- The project has had a significant influence on post-tenure review.

- There is an increased interest in teaching as exhibited by teaching retreats, lunch bunch and web pages.

Texas Tech University.

- Six departments in the College of Agricultural Sciences and Natural Resources submitted plans to evaluate and reward teaching effectiveness.

- According to the campus coordinator, the renewed focus on commitment to teaching continues to be very profitable for the university.

Washington State University

- This project reinforced, validated and enhanced ongoing efforts to change the definition of scholarship and the imbalance in the reward for teaching.

- A proposal has been made to the College of Agriculture that peer review of course content by experts at peer institutions be used for summative evaluation purposes; it would be required as part of the teaching portfolio. Other forms of peer review, including classroom visits, would be used for formative purposes and be optional in the teaching portfolio.

Lessons Learned

The following lessons were gathered from a series of on-campus visits and departmental and individual interviews completed during the final semester of Phase III. Interviews were conducted at five institutions by a University of Nebraska-Lincoln doctoral candidate in leadership studies and the project coordinator.

1. Leadership of the Campus Coordinator

The enthusiasm of the campus coordinators in facilitating and adopting a positive project stance was perhaps the most crucial element for institutional success. In institutions where significant challenges to changing the reward system were encountered, the tenacity and sense of purpose of the project coordinators was the overriding factor in achieving project success.

2. Success of the Grassroots Approach

Success also depended upon the leadership of key faculty in examining and defining rewardable teaching activities specific to the department culture. The most effective departmental team consisted of the department chair, the promotion and tenure chair and a department coordinator who was sometimes a young faculty member seeking tenure. The greatest success came when both a bottom-up/top-down model of change was used in the department and college.

3. Role of the Department Chair

The pivotal role of the departmental chair was extremely important to the successful completion of objectives. In practice and perception, it was absolutely necessary for the faculty team members to feel they had support from the chair. Once the departmental stance was documented and adopted, it was essential that the department chair convey the message of the plan in a credible and valuable manner to the departmental faculty when reviewing for promotion and tenure and merit pay as well as to the college leadership.

4. Validation of Previous Efforts

At many institutions, participation in this project validated, supported and expanded teaching improvement and reward activities initiated previously. Institutions in the project were continuing to examine new definitions of the scholarship of teaching. In some cases faculty with heavy teaching assignment were promoted based on documented evidence of innovation and excellence in their teaching in spite of a merely adequate research record. Submission of a teaching portfolio in the documentation for promotion, tenure and merit decisions was "strongly suggested" at one institution known for promotion based on research and publication.

5. Necessity for Culture Change

Raising the awareness of the need to seek and bring about balance in the reward system was the highest priority among the faculty and administrators interviewed. Many faculty love to teach, long to do it well and strive to do it better all the time. They welcome the processes of peer review especially when used for formative purposes.

6. Reasons for Project Failures

In those institutions where departments were unable to create plans to adjust the reward system to allow greater reward for teaching, it seemed apparent that leadership at all levels — from department to college to institution — was often in turmoil. The faculty members often felt unsupported by the department chair and by the college administration; the college administration felt unsupported and under-appreciated by the faculty and often by the bureaucracy of their own institutional grants office. At one institution the highest level of administration did not have the trust of faculty, thereby causing institutional chaos and lack of job security.

In some instances, the young faculty members who had the most to gain from receiving the benefits of change in the reward system were so over-burdened with their need to tend to research projects that they were unable to spend time with this project. They felt that teaching was very important but they didn't feel that they could take time from research obligations to create a plan that would be useful within their department.

At another institution participants in one department found that when they returned from the conference, they were enthusiastic and wanted to present new ideas to their department, but felt the department chair was not supportive. Although the chair believed the reward of teaching was important, the chair was reluctant to add it to the faculty agenda.

Summary

Bringing faculty leaders and campus administrators together at an annual national conference held in Lincoln, Nebraska, was very helpful in getting the project started on each campus. After being exposed to the ideas and experiences of national leaders of the rewarding teaching movement, campus leaders went away from the conference with information and strategies which gave them confidence and enthusiasm that changes in the reward system for teaching could be accomplished on their campuses.

A key element for success on each local campus was the project leadership's ability to get faculty working together in a focused effort to create change. The ability of the campus coordinator to generate enthusiasm and obtain commitment from department chairs and faculty leaders was crucial. When leaders were unable to elicit this action, very little progress occurred. Halfway through the project it became evident that strong leadership influence had a major impact on project outcomes. Consequently, some basic leadership training was introduced in the final national conference.

If a significant core of faculty is willing to tackle changing the reward system at research-oriented universities, it is possible to make significant inroads into the reward process as is evidenced by above average progress at the University of Idaho, North Dakota State University, Rutgers University, Texas A&M University and Texas Tech University. These universities completed the largest amount of teaching reward plans.

Finally, after 12 years of leading change in 28 institutions, the door for changing the reward system for teaching is opening. However, the door to change also closes quickly in those institutions where leadership does not focus on the teaching mission. The lure of research grants can easily turn back any progress that was made on these campuses.

Recommendations

1. University administrators and faculty benefit from learning how to influence change using collaborative and transformational leadership strategies before attempting to change reward cultures. Strategies such as creating a common vision and empowerment of faculty with authority, should be introduced at the beginning of any change

project.

2. Plan for a meeting or conference where participants learn strategies on how to change the reward process. National conferences focusing exclusively on reward systems change can be an effective catalyst to begin cultural change.

3. Institutional climate for change should be assessed before awarding a grant. Some university cultures are such that change in the reward system will not happen in one generation. Funding such cultures is questionable.

4. Sustained commitment by funding agencies is critical to keeping the focus on teaching reward systems. The work has just begun. There are many years of tradition to be overcome.

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Implementing Real-World Problem Solving Projects in a Team Setting

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Abstract

Hands-on experience is an important educational component of agricultural and technical disciplines, and sub-

stantial effort and innovation in this area is being realized. This paper examines the use of real-world student design problems for actual clients that require a multidisciplinary team approach to solve them. The projects described were used in courses throughout biological and agricultural engineering curricula, and diverse methodologies were used to

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