#### **MINUTES**

# Kansas State University Faculty Senate Meeting February 13, 1996, 3:30p K-State Union Big 8 Room

Members present: Anderson, Baker, Balk, Behnke, Benson, Biere, Bissey, Conrow, Dubois, Dyer, Elkins, Erpelding, Fenton, Foster, Gallagher, Glasgow, Gray, Hagmann, Harbstreit, Hamilton, Hassen, Havlin, Higgins, Hoag, Jardine, Johnson, Klabunde, Klopfenstein, Lamond, Legg, Madsen, May, McCulloh, Michie, Miller, Moeller, Mohr, Molt, Mosier, Moxley, Nafziger, Niehoff, Ottenheimer, Pallett, Peak, Peterson, Pierzynski, Poresky, Rahman, Ransom, Reeck, Schoning, Shultis, Smit, Swanson, Taylor-Archer, Twiss, Verschelden, White, Wilson, Woodward, Zschoche

Proxies: Kassebaum, Kuhlman, Maes, Murphy, Wright

- I. President Havlin called the meeting to order at 3:34p.
- II. The minutes of the January 9, 1996, meeting were approved as circulated.

#### III. Announcements

- A. Dr. Thomas Angelo of the American Association of Higher Education will conduct a workshop about "Assessing Student Learning" on March 8 in the K-State Union. The College of Agriculture is sponsoring the program, which is open to all faculty and graduate students in the university.
- B. The legislature is dealing with the Governor's budget proposal. The House is expected to vote on his proposal as an omnibus bill, while the Senate wants to consider it in sections. The outlook is currently good for the Regents schools.
- C. President Havlin feels very positive about the promising start to university planning that occurred at the Faculty Retreat in January. A transcript of the minutes is available on Unicorn. Hard copies have been sent to the chairs of the caucuses and the College Committees on Planning. He and Curtis Kastner, Chair of the Strategic Planning Committee, have written all College Committees on Planning detailing procedures and for CCOP's to solicit Faculty input into the strategic planning process.
- D. The Intellectual Property Agreement Form is still under discussion. The draft dated January 24 has been discarded and Faculty Affairs will be asked to consider a new version.
- E. The Conflict of Interest form is being revised. Although COCAO has approved the Fort Hays form, a local committee is working on a K-State version. The plan is to bring the form before Faculty Senate in March.

## IV. Standing Committee Reports

A. Academic Affairs Committee -- John Johnson

### Course and Curriculum Changes

1. Senator Johnson moved approval of Course and Curriculum Changes (599 & below) approved November 10, 1995, by the College of Human Ecology. The motion was seconded and passed.

#### General Education Courses

2. Senator Johnson moved approval of General Education Courses approved December 1, 1995. The motion was seconded and passed.

FOR 375 Introduction to Natural Resource Management

HORT 210 Concepts of Floral Design

PSYCH 110 General Psychology

3. Senator Johnson moved approval of General Education Courses approved December 8, 1995. The motion was seconded and passed.

SPCH 326 Small Group Discussion Methods

HORT 256 Human Dimensions of Horticulture

4. Senator Johnson moved approval of General Education Courses approved December 15, 1995. The motion was seconded and passed.

SPCH 321 Public Speaking II

MC 235 Mass Communication in Society

FSHS 350 Family Relationships and Gender Roles

KIN 220 Dynamics of Sport and Exercise

POLSC 301 Introduction to Political Thought

ENGL 262 British Literature: Enlightenment to Modern

ENGL 271 American Literature: Colonial Through Romantic

ENGL 272 American Literature: Realists and Moderns

ENGL 287 Great Books

5. Senator Johnson moved approval of Graduate Courses approved by the Graduate Council on November 7, 1995

#### New

FINAN 641 Financing Emerging Businesses
PHYS 620 Teaching University Physics
PHYS 639 Computations in Physics
PHYS 652 Optics and Lasers
PHYS 655 Physics of Solids

Drop

PHYS 651 Introduction to Optics PHYS 681 Semiconductor Physics

- 4. Senator Johnson moved approval of the Masters of Engineering Management. The motion was seconded and passed.
- 5. Senator Johnson moved approval of the December 1995 graduation list. The motion was seconded and passed.

Senator Hamilton inquired about the status of the proposed merger between K-Sate and the Manhattan Area Technical College. Senator Johnson indicated that the committee has been looking at the documents since fall. The current status is that the merger has been approved by the Regents and is awaiting legislative approval. At that time KSU and MATC representatives will meet and discuss the acceptability of courses and other matters. Concerns voiced included a financial one, since MATC would collect tuition money and reimburse KSU for courses taught. Another senator asked what control KSU would have about the qualifications of the faculty. Senator Johnson assured the senators that the proposal will come before Faculty Senate for discussion and action.

# B. Faculty Affairs Committee -- Gary Pierzynski

Faculty Affairs had no items for Senate action.

The Committee has considered upcoming Faculty Handbook changes with respect to Research Faculty. Those with regular faculty appointments will have representation on Faculty Senate. They are also looking at the appropriateness of student voting on Faculty Senate standing committees. The proposed Conflict of Interest and Intellectual Property Agreement forms will also be scrutinized by Faculty Affairs.

#### C. FSCOUP -- Mickey Ransom

FSCOUP had no items for Senate action.

Vice-Provost Unger met with FSCOUP to discuss proposed changes for dial-up SLIP access. The changes would charge all users of SLIP connections and use the revenues generated to upgrade equipment. The plan is that an immediate drop in the number of users coupled with expansion of available connections will make access possible at most hours, which is not the case at present. Senators pointed out that charging for access may discourage faculty from integrating computer use into their classes. Senator Ransom stated that FSCOUP decided not to act on this matter because it is going into effect, and besides a clear majority pro or con might not be achievable in FSCOUP.

FSCOUP believes it is not in their charge to be an investigative body with respect to KSURF. If Senate wants such a group, FSCOUP suggests they name a new committee. President Havlin stated that FSCOUP would be actively involved in any reorganization plan for KSURF that is put on the table. In March there should be one, or most likely two faculty member(s) on the Board of Directors. Moreover, an internal audit is underway with "interesting results." It is clear that policies at the Foundation need to be corrected and, with faculty involvement, will be. Senate leadership is keeping up with the situation.

Senator Smit pointed out two situations she felt should not continue past this fiscal year. It is wrong for the university to subsidize the salary of the director, as seems to be the case. In addition, there is apparently no in-house expertise on licensing. Senator Baker asked about a rumor that some firms sponsoring research insist that the researchers keep silent on their work. Senator Klabunde stated that information can be sequestered briefly, usually about six months, if the parties involved consent.

Senator Ransom reported that FSCOUP is looking at the budget problems of the library and will meet with Dean Hobrock. Senator Conrow asked whether FSCOUP has discussed the NEH proposal. They have not.

- V. There was no old business.
- VI. There was no new business.
- VII. For the Good of the University

Senator Niehoff reported that Susan Higham Dahl, daughter of Barbara and Robin Higham passed away this morning. The Senate joins him in expressing condolences to the family.

VIII. The meeting was adjourned at 4:15 p.m.



### **Budget Office**

207 Anderson Hall Manhattan, Kansas 66506–0106 VOICE: 913-532-6767 FAX: 913-532-6748

#### MEMORANDUM

TO:

President Jon Wefald

FROM: John M. Struve

DATE: January 12, 1996

RE: Governor's FY 1996 and FY 1997 Budget Recommendations

As you are aware, Governor Bill Graves released his budget recommendations for FY 1996 and FY 1997 on January 8, 1996. This memo is a high-level summary of his recommendations affecting Kansas State University.

handlad, at 2-13-96 mtc

Salary Increases: The Governor recommended a 2.5 percent merit increase for unclassified staff and a 2.5 percent salary increase for student employees, both with a midyear effective date. Classified staff would receive a step increase of about 2.5 percent. He recommended continuing the longevity bonus program for classified staff but restricted the scope of eligibility. The State's share of providing group health insurance benefits for employees and dependents for FY 1996 has been reduced through renegotiation with the health care provider. These savings will be carried forward to next fiscal year and used to finance part of the FY 1997 recommendations.

Tuition Accountability: The Governor embraced the concept of tuition accountability for Kansas State University and the University of Kansas as proposed by the Board of Regents. This endorsement includes the assumption that KSU and KU will convert to a linear tuition schedule in the fall of 1996. As a part of the tuition accountability proposal, the Governor recommended a self-funded program enhancement of \$278,255 for instructional equipment and OOE.

Other Operating Expenditures (OOE) Increases: No increase in base OOE funding was recommended.

President Jon Wefald
Governor's Budget Recommendations
January 12, 1996
Page 2

**Program Enhancements**: Two program enhancements were recommended by the Governor. Both are self-funded from tuition revenue. The enhancements are for Main Campus instructional equipment and OOE support in the amount of \$278,255 (as referenced earlier in this memo) and for increased faculty staffing at the Veterinary Medical Center in the amount of \$180,450. None of the other program enhancements requested were recommended.

Capital Improvements: On a system-wide basis, the most significant capital improvement recommendation is the Governor's support of the "15/15 EBF Plan." Under this plan, bonds totaling more than \$156 million would be issued in FY 1997 to address a wide variety of ADA, life safety, classroom improvements, rehabilitation and repair, major remodeling and new construction needs. Combined with interest earnings, the total project costs would be more than \$163 million. Funding for the repayment of the bonds would come from the Educational Building Fund.

For Kansas State University, the Governor recommended funding to complete the Library Expansion Project in the amount of \$2,100,000 and \$1,630,000 for Library Expansion Project Furnishings and Equipment.

New Building Operating Support: The entire New Building Operating Support request of \$407,108 was recommended. This funding will provide support for the physical plant operation of the Beach Museum of Art and for the Farrell Library Expansion.

Appropriation Line Consolidation: For Main Campus and K-State Salina, all State General Fund appropriation lines were consolidated into a single line, including utilities. The consolidation of utilities and operating appropriations represents a major departure from past funding practices. Besides utilities, this change will eliminate separate appropriations for the Engineering Experiment Station and for Graduate Teaching Assistant salaries. It is believed that the expenditure limitation for Graduate Teaching Assistant tuition waivers will also be eliminated. A good possibility exists that FY 1997 appropriation bills will allow unencumbered State General Fund balances at the end of a fiscal year to be carried forward to the next fiscal year, thus eliminating the "use it or lose it" dynamic. Presumably this provision would become effective at the end of the current fiscal year. These questions will be answered when the appropriation bill is introduced later this month. Appropriation line configurations for Veterinary Medical Center and for Extension Systems and Agriculture Research Programs were unchanged.

<u>Tuition Supplemental Appropriation Request - FY 1996</u>: We requested a supplemental appropriation of \$192,038 to replace less-than-anticipated tuition revenue for FY 1996. The Governor recommended the full amount.

President Jon Wefald Governor's Budget Recommendations January 12, 1996 Page 3

<u>Utilities Supplemental Appropriation Request - FY 1996</u>: To cover anticipated FY 1996 funding shortfalls for utilities, we requested \$498,181 for Main Campus and \$41,534 for K-State Salina. Both amounts were recommended by the Governor.

Increased Spending Authority for Sponsored Research Overhead (SRO) Fund - FY 1996: Anticipating increased grant activity, we requested an increase of \$375,000 in the SRO expenditure limitation for Main Campus and \$100,000 for K-State Salina. Both increase requests were included in the Governor's recommendations.

Federal Land Grant Funds Appropriation Request - FY 1996: Federal land grant funding appropriated by Congress for ESARP was \$146,950 less than estimated and a request was submitted for a FY 1996 supplemental appropriation. The Governor did not include our request in his recommendations.

The State General Fund increase from FY 1996 to FY 1997 is 1.4 percent when all subagencies are combined. The combined General Use increase is 1.5 percent.

I have attached several pages of additional information that should be of general interest to you about the Governor's FY 1997 budget recommendations.

If you or any of those receiving copies of this memo have questions, please call me at 2-6767.

c: President's Staff
Council of Academic Deans

### KANSAS STATE UNIVERSITY

#### **Budget Office**

# Comparison of FY 1996 (Revised) to Governor's FY 1997 Recommendations – General Use All Subagencies

	Revised FY 1996 Funding 1	Governor's FY 1997 Recommendation	Percent Difference	Amount Difference
MAIN CAMPUS:				
State General Fund General Fees Fund (Tuition) Other	\$80,393,150 37,716,888 125,000	\$81,373,743 39,019,015 100,000	1.2% 3.5% -20.0%	\$980,593 1,302,127 (25,000)
Total Main Campus	\$118,235,038	\$120,492,758	1.9%	\$2,257,720
VETERINARY MEDICAL CENTER:	•			
State General Fund	\$8,191,914	\$8,152,366	-0.5%	(\$39,548)
General Fees Fund (Tuition)	4,063,085	4,257,999	4.8%	194,914
Hospital and Diagnostic Lab Revenue Fund	2,444,853	2,325,926	-4.9%	(118,927)
Total Veterinary Medical Center	\$14,699,852	\$14,736,291	0.2%	\$36,439
State General Fund	ESEARCH PROGE \$38,840,366 7,674,824	\$39,802,991 7,214,334	2.5% -6.0%	\$962,625 (460,490)
State General Fund Federal Land Grant Revenue	\$38,840,366	\$39,802,991		
State General Fund Federal Land Grant Revenue Total ESARP	\$38,840,366 7,674,824	\$39,802,991 7,214,334 \$47,017,325	-6.0%	(460,490)
State General Fund Federal Land Grant Revenue Total ESARP K—STATE SALINA:	\$38,840,366 7,674,824 \$46,515,190	\$39,802,991 7,214,334 \$47,017,325	-6.0% 1.1%	(460,490) \$502,135
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA:  State General Fund	\$38,840,366 7,674,824	\$39,802,991 7,214,334 \$47,017,325	-6.0%	(460,490) \$502,135
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA:  State General Fund General Fees Fund (Tuition)	\$38,840,366 7,674,824 <b>\$46,515,190</b> \$4,492,317 <sup>2</sup>	\$39,802,991 7,214,334 \$47,017,325	-6.0% 1.1% -1.8%	(460,490) \$502,135 (\$83,102)
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA:  State General Fund General Fees Fund (Tuition)	\$38,840,366 7,674,824 <b>\$46,515,190</b> \$4,492,317 2 813,191	\$39,802,991 7,214,334 <b>\$47,017,325</b> \$4,409,215 949,081	-6.0% 1.1% -1.8% 16.7%	(\$83,102)
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA: State General Fund General Fees Fund (Tuition)  Total K—State Salina  TOTAL, KANSAS STATE UNIVERSITY:	\$38,840,366 7,674,824 \$46,515,190 \$4,492,317 <sup>2</sup> 813,191 \$5,305,508	\$39,802,991 7,214,334 \$47,017,325 \$4,409,215 949,081 \$5,358,296	-6.0% 1.1% -1.8% 16.7% 1.0%	(\$83,102) 135,890 \$52,788
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA: State General Fund General Fees Fund (Tuition)  Total K—State Salina  TOTAL, KANSAS STATE UNIVERSITY: State General Fund	\$38,840,366 7,674,824 \$46,515,190 \$4,492,317 <sup>2</sup> 813,191 \$5,305,508	\$39,802,991 7,214,334 \$47,017,325 \$4,409,215 949,081 \$5,358,296	-6.0% 1.1% -1.8% 16.7% 1.0%	(\$83,102) 135,890 \$52,788
State General Fund General Fees Fund (Tuition)	\$38,840,366 7,674,824 \$46,515,190 \$4,492,317 <sup>2</sup> 813,191 \$5,305,508 \$131,917,747 42,593,164	\$39,802,991 7,214,334 \$47,017,325 \$4,409,215 949,081 \$5,358,296 \$133,738,315 44,226,095	-6.0% 1.1% -1.8% 16.7% 1.0%	(\$83,102) 135,890 \$52,788 \$1,820,568 1,632,931
State General Fund Federal Land Grant Revenue  Total ESARP  K—STATE SALINA: State General Fund General Fees Fund (Tuition)  Total K—State Salina  TOTAL, KANSAS STATE UNIVERSITY: State General Fund	\$38,840,366 7,674,824 \$46,515,190 \$4,492,317 <sup>2</sup> 813,191 \$5,305,508	\$39,802,991 7,214,334 \$47,017,325 \$4,409,215 949,081 \$5,358,296	-6.0% 1.1% -1.8% 16.7% 1.0%	(\$83,102) 135,890 \$52,788

### NOTES:

**Grand Total** 

\$184,755,588

\$187,604,670

1.5%

\$2,849,082

<sup>1.</sup> Differences between FY 1996 amounts shown here and the FY 1996 published annual budget are attributable to changes in group health insurance, general fees and utilities.

<sup>2.</sup> The FY 1996 State General Fund amount for Salina on page 74 of the Governor FY 1997 Budget Report Volume 1 is in error and is overstated by \$189.466.

#### STRATEGIC PLANNING COMMITTEE

#### SUBCOMMITTEE ON UNDERGRADUATE TEACHING AND LEARNING

#### **CONTEXTUAL VARIABLES**

- → Growing enrollment pressures which may produce a 20% increase in enrollment within the next five years.
- Continued state commitment to Open Admissions.
- → Increasing concerns over the lengthening of student time-to-graduation.
- → University's commitment to development of general education courses.
- Waning public and legislative confidence in higher education both in terms of its value and the accountability by which it expends current resources.
- Rapid development of new technologies for the delivery and/or storage of information and knowledge.
- A state fiscal environment which finds higher education competing for stable or even decreasing funds.
- → Possible implementation of "tuition retention" whereby enrollment growth can be addressed and improvements in efficiency will produce real fiscal benefit to the institution.

#### ISSUES TO CONSIDER

- → What can be done to encourage greater faculty involvement in and commitment to the enhancement of undergraduate instruction and the establishment of an ethos of instructional excellence in all programs?
- How can we increase the involvement of senior faculty in the teaching of lower division undergraduate courses?
- → What should be the role and priority undergraduate instruction in decisions regarding hiring, salary, promotion and tenure? Should undergraduate instruction receive increased priority? If so, how can this priority be balanced with research/teaching?
- → What avenues can be provided to assist faculty in the development of pedagogical skills? (e.g., opportunities for inservice assistance, sabbatical opportunities focused upon enhancement of teaching skills, senior faculty mentoring junior faculty, demonstrated teaching competence prior to hiring, etc.)
- How might we increase opportunities for faculty to participate in teaching enhancement activities via satellite and other distance learning modalities (e.g., seminars focused on disciplinary content or successful teaching methodologies)?
- Should increased attention/resources be devoted to pedagogical training for Graduate Teaching Assistants prior to their being assigned to undergraduate classrooms. What level of "teaching expertise" should be expected and demonstrated prior to being assigned to the classroom?
- How do we recognize and effectively address the issue that different students learn "best" via different instructional strategies? What role can technology play

- in providing multiple instructional approaches?
- How can we maximize incorporation of experiential education into the curricula as an avenue by which students can practice and refine communication, thinking, analysis and problem solving skills prior to graduation?
- Are various curricula organized and structured in the most pedagogically sound and efficient order? Are current prerequisites needed? Can material be presented and learned in the traditional 8-semester, 120 credit hour format?
- → What steps can be taken to ensure that courses are offered efficiently yet often enough to enable timely degree progress and graduation?
- What should be the role of academic advising in the undergraduate experience — especially now that computerized degree audits will replace what is now often considered advising?

#### SUBCOMMITTEE ON GRADUATE EDUCATION AND RESEARCH

#### APPROACHES/ISSUES

- 1. Promote policies which ensure Kansas State graduate programs meet the highest academic standards and prepare graduates well for the needs and opportunities of the 21st century.
- 2. Appoint a Task Force on Opportunities and New Directions in Graduate Education with a broad charge, including:
  - Examine ways to increase opportunities for graduate students.
    - + Consider new interdisciplinary graduate programs, some of which will cut across colleges, to capitalize on faculty expertise and respond to new opportunities and developments in the state of knowledge. (There will be a close relationship to programs of research.)
    - + Recognize the changing post-graduation expectations of graduates by prospective employers in business and industry as well as in academia and "reshape" graduate programs accordingly, while retaining their academic integrity.
  - Make recommendations concerning:
    - + the structure of governance of graduate education for effectiveness, efficiency, and quality assurance
    - + the role of master's and doctoral level education at KSU and how Council policies may affect each
  - Examine ways to increase cooperation with the University of Kansas and other appropriate institutions in offering advanced degrees, both in light of diminishing resources and to take advantage of special expertise not available at KSU.
  - Examine distance learning options for degrees offered by KSU as well as in collaboration with other institutions at the graduate level to ensure quality education particularly in emerging disciplines.

- 3. Expand recruitment efforts to increase quality and diversity of the graduate student population.
  - Support for recruitment efforts or initiatives; establish a greater number of fellowships to attract top students from the national pool; increase and expand programs to identify and recruit minority students.
- 4. Publicize the impact of Kansas State graduate programs on the well-being of the state of Kansas: educational, government, and business leaders; practitioners; teachers and faculty throughout the state; and highly trained employees and tax-payers.
- 5. Develop long term strategies for excellence in research and scholarship through the Research Committee.
  - In scientific areas, pay special attention to the 1995 National Critical Technologies report and assess their relevance to Kansas State strengths and needs.
- 6. Identify key disciplines that may be targeted for special emphasis and resources.
- 7. Publicize the profound impact of Kansas State research, in concert with teaching and professional service, on the economy of Kansas.
- 8. Explore needs for expansion of interdisciplinary research programs tied to graduate programs and targeted for support.
- 9. Expand incentive programs for the development of new group efforts that are competitive and that challenge the forefront.
- 10. Continue to build the core infrastructure, from laboratories and support facilities to libraries, giving faculty the capability to perform research and scholarship at a high level, and contributing to the educational mission of the university.
- 11. Enhance statewide cooperation in research programs, including EPSCOR, to best utilize resources within the state to be highly competitive on the national level.
- 12. Continued marketing of research strengths to industrial sectors in Kansas and beyond, such as to secure additional research funds in support of this mission of the university.
- 13. Enhanced commercialization of university intellectual property.
- 14. Develop a major equipment fund from State General funds to continue building a competitive infrastructure that enhances the research and graduate education programs needed for excellence.
- 15. Continue to recognize and publicize the accomplishments of faculty scholarship.

#### SUBCOMMITTEE ON MULTICULTURAL & INTERNATIONAL

#### CONTEXT

- 1. Growing numbers of multicultural and international students.
- 2. Growing internationalization of business.
- 3. Students must learn to live and work with multicultural and international individuals.
- 4. Need to develop a campus community that reflects demographic and economic

changes at the local, national and international level.

- 5. Need to increase interconnectivity between people from different cultures.
- 6. All activities on campus need to reflect these trends.
- 7. Need to increase the sense of belonging for all students.
- 8. Improve the use of technology to access nationally and internationally individuals from other cultures.
- 9. Develop campus role models for diversity.

#### APPROACHES/ISSUES

- 1. How do international and multicultural aspects of the university contribute to the other aspects of the university's mission (instruction, research, etc.)?
- 2. How does KSU prepare students and the State to respond to global opportunities?
- 3. How does this land-grant institution provide access and equity to the less advantaged citizens of our State in an era of decreasing financial opportunity and increasing gap between rich and poor?
- 4. What quality issues are involved in multicultural and international affairs? How can they contribute to the quality improvement of KSU?
- 5. We need to develop creative ways of enabling KSU to effectively relate in more positive ways with those communities that are dominated by <u>people of color</u>.
- 6. The traditional colleges, schools, and departments within KSU must rethink and restructure their basic "behavioral modes" in order to align themselves with the demands of the contemporary demographics of the State, country and global populations.
- 7. How do we assess the impact of the political ethos on policies, programs and procedures on multicultural and international activities?
- 8. How do we offset the impact of declining budgetary allocations/resources on diversity efforts such as recruitment, retention and programs that build and enhance an inclusive campus environment?
- 9. Assess campus climate so that everyone feels a sense of belonging.

#### SUBCOMMITTEE ON TECHNOLOGY TRANSFER

\*IN THE BROADEST SENSE, TECHNOLOGY TRANSFER IS THE APPLICATION OF KNOWLEDGE TO THE SOLUTION OF SOCIETAL PROBLEMS.

- 1. Technology is not the ultimate social panacea. The university must play an active role in evaluating the social and economic impact of all forms of technology transfer in order to maximize the benefits of economic growth and development for the people of kansas.
- 2. As the university becomes involved in various forms of technology transfer, it must do so as a fully participating partner, not simply as a source of expertise.
- 3. To facilitate technology transfer, it is incumbent on university faculty and administrators to develop mechanisms that increase activity in this area and reward participants for their efforts. Inherent in this process is the need to manage conflicts of

interest and time commitment in a manner that optimizes benefits to the faculty and the university.

- 4. If the university is to provide assistance to the state in the area of knowledge transfer, as well as in evaluating the impact of new knowledge, many existing university structures will have to be reconfigured and traditional practices redesigned.
- 5. New approaches to technology transfer should have positive impacts on undergraduate and graduate education, providing students with real-world experience. Obvious examples include internships and research and development experience.
- 6. In all sectors of the university there are opportunities to participate in activities related to technology transfer. The only limits are imposed by the imagination of faculty members. To be sure, some areas may hold (or appear to hold) more opportunity than others.
- 7. Given the differences between academic disciplines, mechanisms used to facilitate participation in the process of technology transfer will vary greatly.
- 8. As departments become involved in new ways of using knowledge for the benefit of society, fresh approaches to curriculum development will emerge.
- 9. The activities outlined above will lead to enhanced resources for individual faculty members, departments, colleges, and the university as a whole.

# SUMMARY OF WORK RELATED TO VISION 2020 AND STRATEGIC PLANNING FOR THE UNIVERSITY OF THE FUTURE AT KANSAS STATE UNIVERSITY SPRING 1996

CURRENT PLANNING ACTIVITIES. In April the K-State Strategic Planning Committee (SPC) will present a report on The University of the Future. This report will look at the University over ten to twenty years, identify major imperatives, outline new goals and objectives, and suggest key operational strategies. In May, KSU will report to the Board of Regents on the ways in which we are realizing its concept of a changing future articulated in Vision 2020 as well as implementing the Eleven Principles on Improving the Teaching and Learning Environment. We are making every effort to keep our planning activities synchronized. K-State will move into FY97 with a number of major initiatives underway. Aspects of our work during the spring 1996 semester are summarized below.

STRATEGIC PLANNING. During the academic year, the SPC has been looking at The University of the Future. The objective is to delineate the characteristics of KSU during the next ten to twenty years. Four working groups will make preliminary reports at a faculty retreat 19 January 1996. These reports include under graduate teaching and learning, graduate education and research, multicultural and international issues, and technology transfer. The reports of these four subcommittees, together with input from college planning committees and individual faculty members, will be discussed by the SPC in February and March and provide the basis for a final report in April.

# IMPLEMENTING VISION 2020.

- I. On the assumption that a bond issue will provide funds to deal with "crumbling classrooms," the Provost and Vice President for Administration and Finance are heading a group to inventory conditions at KSU. Included in the analysis are key variables such as new teaching technologies, the changing curriculum, scheduling issues, demographics, the research infrastructure and the like. The group will solicit faculty input on instructional and research needs as they relate to space requirements and advice from related University committees. The group will establish a priority list of rooms to be repaired. These activities are directly related to item one in Vision 2020.
- 2. Faculty Senate President John Havlin and Provost Jim Coffman have appointed a project team to develop recommendations for three curricular/instructional initiatives in response to item one in *Vision 2020*. This group will report in April. At the same time, Provost Coffman and the Office of Educational Advancement will meet with each Dean and college curriculum committee to discuss the development of a new and more realistic context in which to rethink and redesign the curriculum.

- 3. In order to more effectively evaluate teaching and learning and the personalized allocation of time, talent and effort, departmental guidelines defining criteria and standards for annual evaluations of faculty are being reviewed and revised. These activities are related to items two and three in *Vision 2020*.
- 4. In keeping with the increased emphasis on optimizing the match between the allocation of faculty time and talent (see items two and three in Vision 2020), and the KSU Faculty Senate's recent legislation concerning "chronic low achievers," we are revising the faculty evaluation process (previously based on comparisons between individuals) to a comparison of individuals with a set of goals and expectations (developed annually for each faculty member). While many departments already use this general approach, a workshop for department heads and deans is scheduled for February.
- 5. A team from the Dental School at Indiana University/Purdue University at Indianapolis will visit KSU 29 February-1 March to discuss their experience with Activity Based Costing as a support tool in the process of revising and fine tuning academic programs and administrative activities. The COCAO will attend a session on 1 March. At a later date, we hope to invite a senior administrator from the University of Indiana at Bloomington on campus to discuss the application of Activity Based Costing on a university-wide basis. These activities relate to items one and five of Vision 2020 as well as having implications for developing more effective strategies for the allocation of faculty time and talents, and in rethinking the curriculum and how it is taught and learned.
- 6. The Provost and Vice Presidents, along with appropriate staff, will examine the possibility of internally relabeling the budget to reflect strategic and operational objectives and priorities. They will present a preliminary report by mid-April. In addition, they will establish a working group to identify administrative activities that make excessive demands on faculty time and suggest ways to correct the situation. These activities are related to item two in Vision 2020.
- 7. In order to carry out the mandates in item four of Vision 2020, we will obtain information concerning the most expensive and time consuming administrative activities and processes at the department, college and/or university level and propose ways to simplify or eliminate these activities. This process needs to be completed by mid-April.

Revised 22 January 1996

Faculty Senate Committee on University Planning January 23, 1996

Members present: Mickey Ransom, Rich Gallagher, Ken Klabunde, Tony Crawford, Larry Farmer, Sue Maes, Rose McMurphy, Bob Poresky.

Guests: Elizabeth Unger, Clinton Owensby.

#### 1. Approval of minutes

Regarding the November 21, 1995 minutes, Tony Crawford asked that the portion of the minutes that discussed: administrative survey of teaching loads" be changed to reflect the fact that the library faculty do not have teaching loads vs. "no report" as it was stated. Maes moved approval of the minutes with the change. Klabunde second. Minutes were approved.

#### 2. Proposed charges for dial-up SLIP access

Dr. Unger addressed the group concerning proposed charges for dial-up SLIP access for the KSU computing system. Currently the University has 64 SLIP connections for faculty to dial into campus and connect to the Internet. By July 1, 128 SLIP compatible lines with 28.8 kilobytes will be available. To help cover the costs of this expansion the University proposes the following cost reimbursement plan for faculty and students:

- 1) \$10/month for 50 hours of SLIP service connection time plus \$.50/hour after
- 2) \$25/month for 100 hours plus \$.50/hour after.
- 3) Departments could buy a line for \$110/month that would be unmetered usage and only certain ID's could access this line

This new charge can be billed by the month, year or semester. She estimates that 1000 users will pay for the service.

Currently 1400 users log on each month to this service for use of the computing system with the average user using 10 hours or less per week. Over 1,650 individuals have user id's. The number of users are expected to continue to rise and KSU has peaked its capacity with the current dial-up system. It is almost impossible to log on during normal working hours. Current availability is between 2am and 6am.

The proposed KSU rates as compared to commercial vendors:

MCI \$11.95 for 15 hours service plus \$.50/hour after
America On Line \$9.95 for 10 hours plus \$2.95/hour after
Flint Hills Computer Systems \$15 for 200 hours plus \$.20/hour after

This proposal was shown to CITAC which is a non-voting advisory group.

As Dr. Unger presented the situation she explained that: 1) we can do nothing; 2) we must find replacement \$'s for an approved system; 3)individuals could buy the service from a common carrier; 4) KSU could invite a vendor to run the campus. WSU has contracted with MCI to run their service. The university would be responsible for providing the space for equipment, repairing the equipment and then would bill MCI for their expense. MCI would provide 24 hour help to users. Currently KSU provides 60 hours/per week of assistance and hopes to go to 24 hours/day. The campus goal is to have everyone on the net.

Dr. Owensby presented the following concerns: If felt it was unfair to tax individuals in the following situations: Faculty who work from their home, students who are required to connect to the Internet for class work, and faculty who travel to meetings or are conducting research around the world. In all cases they need access. He felt that the proposed charges would provide a negative incentive for faculty and

students, especially in the expanding distance learning area. He also worried that it would hurt departments without resources.

Dr. Unger said that the charge system was an economic consideration. At WSU everyone will pay \$12.95 for 20 hours., KU \$30/year; ISU \$10/month, North Carolina State \$15/mo.

Dr. Owensby proposed that the state legislature support Internet connectivity.

FSCOUP agreed to go back to their constitutes for input and the chair will go back to Executive Committee of the Senate. The chair will also notify the student government representative.

#### 3. Report from the Strategic Planning Committee

Ken Klabunde presented an update on the "Strategic Planning" process. He said the Faculty Senate retreat went well. He distributed copies of ideas which came out of the meeting. Deadlines that affect FSCOUP are as follows: CCOUP's will take the retreat information and write a report to send to FSCOUP. By March 1 FSCOUP should review the material and prepare a response to the Strategic Planning Committee. Mickey will talk to Curtis Kastner about firm dates and expectations.

#### 4. Update on KSURF reorganization

The request to form an ad hoc committee to investigate recent KSURF actions was discussed. Members felt that FSCOUP should not be a probing body. If the Executive Committee of Faculty Senate wished to investigate the actions and appoint a committee, they should go ahead outside of FSCOUP.

5 The "Intellectual Property Agreement" presented by Ron Trewyn will be discussed at the February 6 meeting..

Meeting was adjourned at 5:15pm.

FSCOUP will meet again February 6 and 20 at 3:30 PM in Union 209.

# ENHANCING TEACHING EFFECTIVENESS

# WORKSHOP

Topic: ASSESSING STUDENT LEARNING

Speaker: Dr. Thomas A. Angelo, Director - Assessment Forum

American Association of Higher Education

Washington, D.C.

Dr. Angelo is a national expert on assessment of learning and has written extensively on the subject. He will discuss basic principles as well as needed changes in assessment of learning in higher education. He is a dynamic speaker and will engage and challenge participants to reassess assessment of learning.

When: March 8, 1996

1:00 - 4:00 pm

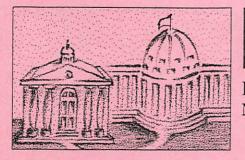
Where: Big 8 Room, K-State Union

Who: Faculty and Graduate Students

Registration: At the door (no preregistration needed)

Contact: John Havlin (2-7211) Vicki Clegg (2-7828)

Sponsored through a grant from the USDA-Higher Education Challenge Grant Program. College of Agriculture, Kansas State University.



# **Assessment Update**

Progress, Trends, and Practices in Higher Education November-December 1995 • Volume 7, Number 6

# Improving Classroom Assessment to Improve Learning: Guidelines from Research and Practice

Thomas A. Angelo

cademics are celebrated for disputing and disagreeing with one another. And tradition dictates that faculty and administrators take contrary positions on virtually all questions of academic import. So, when faculty leaders and administrators actually do agree on a major academic issue—and, even more remarkably, find themselves on the same side of the fence with politicians, bureaucrats, and business leaders—it is an occurrence rarer than the grand alignment of the planets. It behooves us to note, therefore,

# When faculty "do assessment," they are usually motivated by a laudable personal and professional commitment to understand and improve learning.

that for more than a decade, higher education opinion leaders of all stripes, government officials, regional accreditation associations, and publications such as *Assessment Update* have each and all urged college teachers to view and use assessment as a means to improve the quality of student learning.

In response, faculty on hundreds of campuses have endured speeches, labored in workshops, and convened at conferences on assessment. They have involved themselves in seminars, committees, and task forces. They have produced plans, projects, publications, and evidence of progress. Through these many and diverse efforts, typically led by faculty—and often encouraged and sponsored by administrators—thousands have become familiar with, and sometimes expert in, assessment methods. Many have adapted existing methods to fit the particular needs of their campuses. Others have developed new approaches and techniques. All this despite the fact that, in most institutions, engaging in assessment activities neither earns one extra compensation nor counts in tenure or promotion decisions. Thus, when faculty "do assessment," they are usually motivated by a laudable personal and professional commitment to understand and improve learning.

#### Classroom Assessment: The Good News

Given that commitment, it is not surprising that many college teachers have shown interest in Classroom Assessment (CA). As Steadman (1995, 13–14) put it, "One reason for Classroom Assessment's widespread appeal is that it capitalizes on teachers' existing

*Note:* We are grateful to Consulting Editor Thomas A. Angelo for conceptualizing and assembling this special issue on Classroom Assessment.—*Editor* 

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# Assessment Update

Progress, Trends, and Practices in Higher Education

November-December 1995 Volume 7, Number 6

### Editor

Trudy W. Banta, vice chancellor for planning and institutional improvement, Indiana University-Purdue University Indianapolis settle van eer

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Correspondence: Address all editorial correspondence to Trudy W. Banta, Editor. Please send requests for subscriptions to Jossey-Bass Inc., Publishers, 350 Sansome St., San Francisco, CA 94104-1342. Tel.: (415) 433-1767.

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motivation to teach as well as they can . . . it is an intrinsically rewarding activity." In brief. CA is a simple method—and a series of related techniques—faculty use to collect feedback, early and often, on how well their students are learning. Its purpose is to provide information and insights needed to adjust and improve teaching and learning as they occur (see Angelo, 1994a, for a fuller description and examples).

Just how widespread is faculty involvement in CA? Since K. Patricia Cross and I began work on this approach in 1986, I have led over 100 workshops involving more than 10,000 faculty, and about 5,000 others have taken part in teleconferences. Cross has spoken to more than 20,000 academics on this theme. And in five summer institutes, we prepared nearly 400 workshop and campus project leaders, many of whom now also regularly present talks and workshops on CA. The demand for training in CA, which began in the community colleges, has spread to four-year colleges, comprehensive state universities. and even a few research universities.

In print, CA has had wide dispersion as well, with more than 15,000 copies of the original CA techniques (CATs) handbook (Cross and Angelo, 1988) and 20,000 copies of the second edition (Angelo and Cross, 1993) published. The number of articles, reports, dissertations and theses, newsletter blurbs, and even videotapes on CA has grown steadily. Given all this, I suspect that, among instructional innovations of the last decade, only writing across the curriculum and cooperative learning have had a wider distribution among faculty.

The good news, then, is that thousands of college teachers across the country have made and are making good use of CA by adapting and developing simple tools to get feedback on students' learning, and that they are using that feedback to make adjustments in the classroom. And it appears to be working. Studies of the impact of CA (Kelly, 1993; Kalina and Catlin, 1994; Steadman, 1995) indicate positive effects on teaching and (continued on page 12)

#### Call for Contributions

The editor welcomes short articles and news items for Assessment Update. Guidelines follow for those who would like to contribute articles on outcomes assessment in higher education.

- Content: Please send an account of your experience with assessment in higher education. Include concrete examples of practice and results.
- Audience: Assessment Update readers are academic administrators, campus assessment practitioners, institutional researchers, and faculty from a variety of fields. All types of institutions are represented in the readership.
- Style: A report, essay, news story, or letter to the editor would be welcome. Limited references can be printed; however, tables cannot be included.
- Format: In addition to standard manuscripts, news may be contributed via telephone call, outline, or letter. The standard manuscript format is a 60-space line with 25 lines per page. If word processing is used, please submit a 3 1/2" diskette and three paper copies of your article. WordPerfect 5.1 or 6.0 is preferred.
- Length: Articles should be four to eight typed, double-spaced pages (1,000-2,000 words). Short news items for the Calendar, Events, Memos, With FIPSE Support, and Book Review sections may be 100-500 words in length. Annotations of recent publications for the Resources feature should be about 50-100 words long.
- Copyright: Articles shall not have been registered for copyright or published elsewhere prior to publication in Assessment Update.
- Deadlines: Each issue is typically planned four months before its publication. Future deadlines for submitting articles are February 1 (May-June 1996 issue), April 1 (July-August 1996 issue), and June 1 (September-October 1996 issue).

Please address all contributions to Trudy W. Banta, Editor, Assessment Update, Rm. 140 Administration Bldg., 355 N. Lansing St., Indianapolis, IN 46202-2896.

# Classroom Assessment

(continued from page 2)

learning behavior and on student and teacher satisfaction.

#### ... And the Bad News

So what is the bad-or, at least, less inspiring-news? First, these studies, as well as our own observations and those of many colleagues, suggest that simple exposure to CA and episodic use of CATs does little to change the deeper habits of teaching and learning. For example, in my experience, very few teachers systematically record and make use of the insights gained from their use of CATs over time, and fewer still apply what they are learning to revise their syllabi or exams. Although we expected that many faculty would use CA as a stepping stone to more systematic, ongoing classroom research, few have done so. Students also apparently find it difficult to build CATs and lessons learned from them into their repertoires of learning and study skills or to transfer CA strategies learned in one course to another. Second, individual teachers' CA projects have been very difficult to link to departmental, program, and institutional assessment efforts. And, third, CA groups on campuses have been difficult to maintain over time, often sputtering out after two or three years. In other words, for individual teachers, groups of faculty, and students, CA has typically been an add-on activity, rather than one fully integrated into-and transforming-their practice.

If I am correct in characterizing the impact of CA on many individuals and campuses as fairly wide but not particularly deep or long-lasting, what are the main reasons for that? And how might we make it a deeper, longer-lasting, more effective force for learning improvement?

#### Why Classroom Assessment Has Not Been Particularly Deep or Long-Lasting

There are three major reasons why CA has been less effective than it might have been, and might yet become. First, as Steadman (1995, p. 20) pointed out, CA workshops and materials too often focus on the *whats* and *hows* of the approach, offering teachers definitions, simple techniques to adapt and apply, and examples of their use. By contrast, the *whys*, the theory- and re-

search-based underpinnings of CA, are largely ignored. Second, faculty CA efforts are rarely intentionally connected to and embedded in the larger instructional systems of departments and institutions. And, third, the ways in which campus CA projects are organized often fail to build on lessons learned from practice about successful instructional innovations.

In the remaining sections, I make some suggestions for addressing these three issues and improving the practice of CA. In doing so, I draw on earlier work (Angelo, 1993; Angelo, 1994b), in which the relevant references can be found. But many similar, more eloquently stated, and broader assessment guidelines can be found in Banta (1993), Hutchings (1993), and Marchese (1994).

#### Connecting Classroom Assessment Practice to Research on Learning

Equipped with some knowledge of the basic research on learning from psychology, cognitive science, and higher education that informs CA-an understanding of why and how feedback matters, for example-faculty are likely to be more motivated to give assessment the time and attention it requires. Armed with guidelines from research, college teachers can identify those variables that matter most in promoting learning, and on which, therefore, they can most productively focus their assessments. And once they have developed a general, conceptual understanding of learning, faculty find it easier to transfer and apply what they have learned-to move beyond the few simple CATs they have been taught in workshops and to develop their own, contextually valid assessment approaches.

In this limited space, it is impossible to provide faculty or faculty developers with even an introduction to the research that can inform and improve CA practice. K. Patricia Cross and Mimi Harris Steadman are presently finishing a book, to be published in fall 1996, designed to do just that. In the meantime, Angelo and Cross (1993) and Angelo (1993) may be of some help. Nonetheless, as a quick example of the relevance of research to practice, let me offer a list of research findings that could serve as focal points for CA efforts. These represent ten of the most powerful "pressure points" we have for improving learn-

ing quality. After each finding (why), I suggest a possible CA focus (what) and strategy (how). Then, in parentheses, I give the name of a CAT (see Angelo and Cross, 1993) that might be useful.

In general, we know that students learn more when they

Are actively engaged in their academic work. Ask students to stop periodically as they study or listen to a lecture, say, every 10 or 15 minutes, and to write brief comments on how actively they are attending and on what they have just understood (Punctuated Lecture).

Set and maintain high but realistic expectations. Find out what students expect to learn from your course and see how well their learning goals match your teaching goals (Goal Matching and Ranking).

Pay attention to their own ways of working so that they can monitor, direct, and redirect their energies and attention. Have students keep a log of their academic work for a few days, focusing on the specific study strategies and techniques they use (Diagnostic Learning Log).

Ask for, provide, and make use of regular, timely, specific feedback. Get students into the habit of regularly writing down an important question they have on the material, provide responses to the most common questions, and then get feedback on what students actually do with those responses (Minute Paper or Muddiest Point).

Connect new information to prior knowledge. Use a simple questionnaire to find out what students know or believe about specific topics before you begin teaching those topics (Background Knowledge Probe).

Organize what they are learning in personally meaningful and academically appropriate ways. Have students draw maps, graphs, or charts to show meaningful connections among the ideas and information they are learning (Concept Maps).

Look for and experiment with real-world applications of what they are learning in the classroom. Ask students simply to write down two or three possible applications to their other classes, their work, their home lives, or the like (Applications Card).

Work regularly and productively with their instructors. Have a colleague ask your students to write down specific examples of how you help them learn, hinder their learning, and might help them improve their learning. Ask that colleague to then share a summary of students' responses with you (Group Informal Feedback on Teaching).

Work regularly and productively with other students. Teach students to assess their own and their team members' group process skills (Groupwork Evaluation).

Invest as much time and high-quality effort as possible in their work. Provide students with a form for keeping track of both the quantity and quality of their study time during one week (Productive Study Time Logs).

# Connecting Classroom Assessment to the Department and Institution

As I noted above, it has been very difficult to connect the CA efforts of individual faculty to ongoing assessment efforts at the departmental and institutional levels. Here I suggest only one way that such vertical linkages might be forged, although there are many other approaches. First, if all faculty in a given department or in the whole institution identify their most important instructional goals and the learning outcomes they most value, using the same framework and language, it can help instructors see their individual aims in the larger context. This kind of exercise, followed up by well-organized discussions, can lead to decisions to focus individual CA projects on a finite number of critical common goals. The Teaching Goals Inventory (Angelo and Cross, 1993) is one simple and efficient means for identifying and clarifying individual and group instructional goals.

#### Making Campus Classroom Assessment Efforts More Effective

Over the past few years, I have noticed that those campus CA efforts that persevered and prospered had certain characteristics in common. My strong sense is that the characteristics of successful CA programs are similar to the characteristics of successful institutional assessment programs, teaching improvement programs, and other academic innovations aimed at improving educational quality (Angelo, 1994b).

The most successful, long-lasting CA programs

Are embedded in and connected to the institutional culture. They support and reinforce the institution's particular mission, goals, academic programs, and culture of teaching and learning. For example, if CA

is not an acceptable term on campus, they use another. If developing learning communities is the major academic thrust, they embed CA in that ongoing effort, rather than launch a new, parallel initiative.

Plan and program for the long-term. They engage in a very small number of significant and sustainable projects, building in adequate support for follow-up activities, assessment, and revision from the beginning.

Offer a range of incentives, both intrinsic and extrinsic, to motivate faculty to invest their time and energies. They offer incentives that faculty value and that can be sustained throughout the course of the initiative. That may mean, for example, offering committee service credit, workstudy student assistants, or travel stipends rather than release time or honoraria.

Benefit from strong, stable, and continuing administrative support. One administrator, often a dean or academic vice president, is responsible and accountable for providing the support faculty need to succeed.

Are led by well-respected, competent individuals with strong academic credentials and good interpersonal skills. These are typically senior faculty members.

Help faculty develop skills and knowledge that they can adapt and apply to their specific disciplines, courses, and students. This means focusing more attention and resources from the start on discipline-specific efforts than on generic ones.

By using lessons learned from research on effective teaching and learning, as well as lessons drawn from the practice of instructional and faculty development, we can help college teachers improve the effectiveness of their assessment efforts and, as a consequence, improve the quality of their students' learning.

Three articles in this issue exemplify the kind of effective, well-informed, "deep" approaches to CA we ought to be promoting. Anita Gandolfo and Curtis Carver, for example, have taken CA out of the classroom and into students' study time—where it may be even more valuable—through the use of electronic mail. Charles J. Walker has focused his efforts on melding assessment process and course content, creating a new CAT that intertwines with and reinforces the groupwork skills and concepts to be learned as it assesses students' learning of them. Barbara E. Walvoord and Virginia

Anderson, by contrast, have developed not a technique but a broad approach to revisioning grades as a source of CA data—and a way of gaining double benefit from work we all already do.

#### References

Angelo, T. A. "A 'Teacher's Dozen': Fourteen General, Research-Based Principles for Improving Higher Learning in Our Classrooms." *AAHE Bulletin*, 1993, 45 (8), 3–7, 13.

Angelo, T. A. "Classroom Assessment: Involving Faculty and Students Where It Matters Most." *Assessment Update*, 1994a, 6 (4), 1–2, 5, 10.

Angelo, T. A. "From Faculty Development to Academic Development." *AAHE Bulletin*, 1994b, 46 (10), 3–7.

Angelo, T. A., and Cross, K. P. Classroom Assessment Techniques: A Handbook for College Teachers. (2nd ed.) San Francisco: Jossey-Bass, 1993.

Banta, T. W. "Involving Faculty in Assessment." Assessment Update, 1993, 5 (1), 3, 6.

Cross, K. P., and Angelo, T. A. Classroom Assessment Techniques: A Handbook for Faculty. Ann Arbor: NCRIPTAL, University of Michigan, 1988.

Hutchings, P. "Principles of Good Practice for Assessing Student Learning." *Assessment Update*, 1993, 5 (1), 6–7.

Kalina, M. L., and Catlin, A. "The Effects of the Cross-Angelo Model of Classroom Assessment on Student Outcomes: A Study." Assessment Update, 1994, 6 (3), 5, 8.

Kelly, D. K. "Classroom Research and Interactive Learning: Assessing the Impact on Adult Learners and Faculty." Unpublished doctoral dissertation, Claremont Graduate School, 1993.

Marchese, T. J. "Assessment, Quality, and Undergraduate Improvement." *Assessment Update*, 1994, 6 (3), 1–2, 12–14.

Steadman, M. H. "CATs for Community Colleges: Changing Both Sides of the Teaching-Learning Equation." Sarasota Springs, N.Y.: National Center on Adult Learning, 1995.

Thomas A. Angelo is director of the Assessment Forum, a core project of the American Association for Higher Education.