

Best Practices in Assessing and Evaluating Teaching

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Program Description

- This session will provide goals, research data, practical applications, and a comprehensive model for the evaluation of teaching that includes student, peer, and self-assessment of faculty teaching.

Select Resources

- Arreola RA. Developing a comprehensive faculty evaluation system. Anker Publishing, Boston MA, 2000.
- Seldin P. Changing practices in evaluating teaching. Anker Publishing, Boston MA, 1999.
- Cashin WE. Student ratings of teaching: the research revisited. IDEA Paper 32, 1995.
- www.theideacenter.org

Outline: Assessment & Evaluation of Teaching

- Purpose & Definitions
- Sources of Information
- Self Assessment & Teaching Portfolios
- Student Evaluation
- Peer Assessment & Evaluation
- Administrator Assessment & Evaluation
- Expert Assessment & Evaluation
- Other Methods & Considerations
- Conclusions & Summary

Assessment and Evaluation of Teaching

The major purposes of assessing and evaluating "teaching" are to

enhance the teaching abilities of faculty

in order to enhance student learning

and ultimately enhance student abilities.

Abilities

- Knowledge or Cognitive Domain
- Psychomotor or Skill Domain
- Affective or Attitudes & Behaviors Domain

Teaching Defined

- The facilitation or enhancement of learning
- “Activities of educating or instructing” *
- “Activities that impart knowledge or skill” *
- “The act, process, or art of imparting knowledge and skill” **

* <http://www.thefreedictionary.com/teaching>

** <http://www.answers.com/topic/teaching>

Teaching Defined

- Teachers
 - “Provide [students] the opportunity to learn”
 - “Create conditions that facilitate learning”
 - Cause learning ?
- “Use techniques and methods that ... create a high probability that learning will occur”

Arreola. Developing a comprehensive faculty evaluation system. 2000.

Teach vs. ...

- Teach
 - almost any practice that causes others to develop skill or knowledge
- Instruct
 - almost always implies a systematic, structured method of teaching
- Tutor
 - giving of usually private instruction or coaching in a particular subject or skill
- Train
 - development of desired behaviors through practice, discipline, or the use of rewards or punishments
- Educate
 - imparting of a specific body of knowledge, especially one that equips a person to practice a profession

<http://dictionary.reference.com/browse/teaching>

Teaching Ability Domains / Areas

- Content expertise
- Instructional design skills
- Instructional delivery skills
- Course management skills
- Subject matter mastery
- Curriculum development
- Course design
- Delivery of instruction
- Assessment of learning
- Availability to students
- Administrative requirements

Arreola. Developing a comprehensive faculty evaluation system. 2000.

Seldin. Changing practices in evaluating teaching. 1999.

Teaching and Learning- Contexts

- The extended curriculum
- Curricular design and delivery
- Course design and delivery
- Students' abilities
- Institutional, college, school, department mission, goals, expectations
- Professional expectations
- Resources

* <http://www.thefreedictionary.com/teaching>

Assessment vs. Evaluation of Teaching

- Assessment of Teaching
 - Collection and use of information on teaching for the major purpose of improving teaching
- Evaluation of Teaching
 - Collection and use of information on teaching for the major purposes of making decisions on annual evaluations, promotion and tenure , teaching awards, etc.

Formative vs. Summative Methods

- Formative Methods
 - Assessment performed during the process
 - Examples
 - Mid-point course assessment
 - Mid-career teaching assessment
- Summative Methods
 - Assessment or evaluation performed at the end of the process
 - Examples
 - End of course teaching evaluation or assessment
 - Overall evaluation of teaching for promotion & tenure

Formal vs. Informal Methods

- Formal Methods
 - Middle and/or End of Course Surveys
 - Focus Groups
 - Course Review Sessions
 - Committee Review
- Informal Methods
 - Students
 - Faculty

Direct vs. Indirect Methods

- Direct methods
 - Observation by peers
 - Evaluation of student performance
- Indirect methods
 - Self assessment
 - Surveys, perceptions, opinions

Major Sources of Teaching Assessment and Evaluation

- Self
- Students
- Peers
- Mentor or mentor group
- Administrator: department chair, etc.
- Committee(s)
- Expert or expert panel

Major Sources of Teaching Assessment and Evaluation

- Self-assessment / reflection
- Teaching portfolios
- Student evaluation of teaching surveys
- Assessments and evaluations
 - Peers, Administrators, Committees, Experts
- Student performance

“Always Used” in Evaluating Teaching in Liberal Arts Colleges in 1998

- 88% Systematic student ratings
- 70% Department chair evaluation
- 65% Dean evaluation
- 59% Self evaluation or report
- 46% Committee evaluation
- 44% Colleague’s opinions
- 40% Classroom visits
- 39% Course syllabi and exams

Seldin. Changing practices in evaluating teaching. 1999.

“Always Used” in Evaluating Teaching in Liberal Arts Colleges in 1998

- 27% Scholarly research / publication
- 16% Informal student opinions
- 9% Alumni opinions
- 7% Grade distributions
- 6% Long term follow-up of students
- 5% Student examination performance
- 2% Enrollment in elective courses

Seldin. Changing practices in evaluating teaching. 1999.

Self Assessment

Self Assessment of Teaching

- Purposes / Uses
 - Assessment
 - Self improvement
 - Direct other assessments
 - Evaluation
 - Annual evaluation or promotion and tenure dossier
- Methods
 - Ongoing, informal
 - Open ended vs. standardized formats
 - Videotaping

Self Assessment of Teaching: Factors to Consider

- Identify strengths and areas in need of improvement
- Impact of recent changes
- Plans for future improvements and development activities

Self Assessment of Teaching

- Strengths
 - Ease, efficiency
 - May enhance continuous development
 - May promote commitment
 - Component of a teaching portfolio
- Weaknesses / Concerns
 - Validity concerns
 - Faculty may over- or under-estimate teaching ability and effectiveness
 - Example: course pace and content
 - However, better teachers may be more accurate
 - May be more effective when used with other methods

Teaching Portfolios in the Assessment & Evaluation of Teaching

- Teaching portfolio components
 - Statement of teaching / learning philosophy
 - Self-reflection
 - Teaching development activities, honors, awards, etc.
 - Select examples from teaching (syllabi, activities, lessons, exercises, lectures, quizzes, examinations, grading rubrics, etc.)
 - Assessments and evaluations of teaching from others

Seldin. The teaching portfolio. 3rd ed. 2004.
Seldin. Changing practices in evaluating teaching. 1999.

Teaching Portfolios: Impact on Faculty

- Faculty were stimulated to
 - Reflect on their own teaching
 - Actualize the learning content
 - Improve their course materials
 - Search for alternative educational methods
- If not useful, then considered as an “administrative inconvenience”

Rijdt C. Teaching & Teacher Education: An International Journal of Research and Studies. 2006;22:1084-93.

Student Evaluations

Teaching Evaluations vs. Course Evaluations

- Teaching Evaluation
- Course Evaluation
- Links Between Teaching and Course Evaluations
- www.ratemyprofessors.com

Student Evaluations of Teaching Surveys

- Purposes / Uses
 - Assessment and evaluation
 - Faculty-based purposes
 - Administrative-based purposes
 - Student-based purposes
- Methods
 - Surveys
 - Focus groups, etc.

Student Evaluations of Teaching Surveys

- Strengths
 - Valuable source of some information – impact
 - Reliability
 - Efficiency
- Weaknesses / Concerns
 - Opinion based
 - Validity (?)
 - Other factors may influence results
 - Heavy reliance as the only measure



Factors that Possibly Influence Student Evaluations of Teaching

- Instructor
 - Academic rank
 - Gender
 - Popularity, reputation
 - Voice
 - Appearance
 - Self esteem
 - Energy, enthusiasm
 - Personality
 - Age (+/-)
- Student
 - Motivation, goals, effort
 - Expected grade
 - Class attendance
 - Low grades
 - Relationship with teacher
 - Enjoyment
 - Stimulation

Cashin. Student ratings of teaching: the research revisited. IDEA Paper 32, 1995
Arreola. Developing a comprehensive faculty evaluation system. 2000.

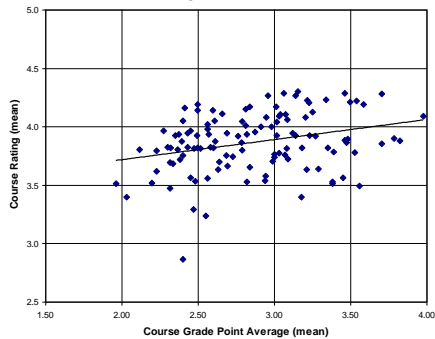
Factors that Possibly Influence Student Evaluations of Teaching

- Course
 - Course level
 - Required vs. elective, perceived importance
 - Workload
 - Difficulty
 - Duration
 - Reputation
 - Grading leniency
 - Type (lab vs. lecture)
 - Social vs. natural science
 - Schedule
- Instrument / Survey
 - Closed &/or open items
 - Ordinal scale
 - Time collected in second half
 - Nonanonymous ratings
 - Instructor present during ratings
 - Reported purpose of the ratings
 - Format
- Other Factors
 - Department chair

Cashin. Student ratings of teaching: the research revisited. IDEA Paper 32, 1995
Arreola. Developing a comprehensive faculty evaluation system. 2000.

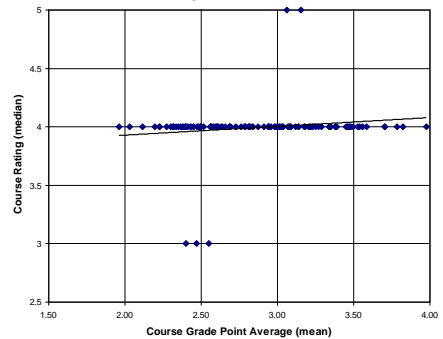
Mean Pharmacy Student Course Ratings by Course

Grading 2003-2008 ($r=0.30$, $p<0.05$)
Course rating scale 1 to 5, GPA scale 0 to 4



Median Pharmacy Student Course Ratings by Course

Grading 2003-2008 ($r=0.30$, $p<0.05$)
Course rating scale 1 to 5, GPA scale 0 to 4



Student Evaluations of Teaching: Paper vs. Online Surveys

Paper Based

- Strengths
 - Response rates
- Concerns
 - Taking class time
 - Limited to only those present
 - Time limits

Online Based

- Strengths
 - Availability
 - Anonymity
 - Time to reflect
 - Entering comments
 - Format of data collection
- Concerns
 - Response rates

Student Perceptions of Good Teaching

Meta-Themes

- Communicator
- Advocate
- Responsible
- Empowering

Themes

- Responsive
- Enthusiast
- Student centered
- Professional
- Expert
- Connector
- Transmitter
- Ethical
- Director

Onwuegbuzie. American Educational Research Journal. 2007

Interesting quote ...

- "... since education is necessarily progressive, a competent teacher's evaluations should include complaints about difficulty and workload."

Beyers C. The hermeneutics of student evaluations. *College Teaching*. 2008;56:102-6.

Simulated Teaching

- Brief instructional unit taught to a group of students who would not normally be taught
- Pre- and post-instruction evaluation of student abilities
- Of limited usefulness

Student Evaluations of Teaching: Standardized vs. Local Surveys

- | | |
|------------------------------------|-----------------------------|
| • Standardized, Commercial Surveys | • Locally Developed Surveys |
| – Reliability | – Targeted |
| – Validity | – Flexible |
| – Structured | – Economical (?) |

Commercial and Other Products

- Individual Development and Educational Assessment (IDEA)
 - The IDEA Center, www.theideacenter.org
- Student Instructional Report II (SIR II)
 - Educational Testing Service, www.ets.org
- Aleamoni Course/ Instructor Evaluation Questionnaire (CIEQ)
 - www.cieq.com
- Student Evaluation of Educational Quality questionnaire (SEEQ)
 - Marsh HW. SEEQ: A reliable, valid, and useful instrument for collecting students' evaluations of university teaching. *British Journal of Educational Psychology*. 1982;52:77-95.
- Approaches to Teaching Inventory (ATI)
 - Trigwell K, Prosser M. Development and Use of the Approaches to Teaching Inventory. *Educational Psychology Review*. 2004;16:409-24.

Reliability of Student Evaluations of Teaching

Reliability correlation coefficients (r)

- Increase with number of respondents
 - 10 respondents: intraclass reliability 0.69
 - 20 respondents: intraclass reliability 0.83
 - 40 respondents: intraclass reliability 0.91
 - Preference for at least 75% of class
- Stability over time
 - Correlation coefficient (r) = 0.83

Cashin. Student ratings of teaching: the research revisited. IDEA Paper 32, 1995

Validity of Student Evaluations of Teaching (SET)

Correlation coefficients (r) with SET scores

- Student learning / performance: 0.23 to 0.57
- Teacher self-ratings: 0.29 to 0.49
- Colleague ratings: 0.48 to 0.69
- Administrator ratings: 0.39 to 0.62
- Alumni ratings: 0.69
- Trained observer ratings: 0.50 to 0.76
- Student comments: 0.75 to 0.93

Cashin. Student ratings of teaching: the research revisited. IDEA Paper 32, 1995

Student Evaluations of Teaching: Other Research

- Student concerns with online evaluations
 - Is the information used?
 - Is the information confidential?
- Improvement in teaching is enhanced when faculty discuss student evaluations of teaching with colleagues or experts

Other Student Assessments & Evaluations of Teaching

- Mid-Course Assessments / Evaluations
 - Surveys
 - Structured Meetings / Focus Groups
 - Informal Discussion
- Participation in Other Evaluation Activities
 - Promotion and Tenure Decisions
 - Teaching Awards Decisions

Peer Assessment & Evaluation

Peer Assessment & Evaluation of Teaching

- Purposes / Uses
 - Assessment
 - Evaluation
- Methods
 - Classroom observation
 - Review of instructional design, materials, tests, etc.
 - Use of standardized methods and reports
 - Individual peer or group of peers
 - Peer conducted focus groups or interviews of students

Peer Assessment & Evaluation of Teaching

- Strengths
 - Peer has expertise in teaching, institution, discipline, etc.
 - Can be content specific
 - May be a component of a mentoring program
 - Opportunity for early, balanced feedback
 - Can be comprehensive and transformational
- Weaknesses / Concerns
 - Peer bias due to reputation, nature of interpersonal relationship, teaching method preferences
 - Process for selecting peer observers
 - May require training of faculty peers
 - Time and other resource intensive

Methods to Enhance Peer Assessment & Evaluation of Teaching

- Construct a plan, complete with purposes, roles, responsibilities, expectations, etc.
- Develop (and test) criteria and data collection instruments (observation checklists, etc.)
- Observation of teaching
 - Determine the purpose: assessment vs. evaluation
 - Instructor preparation
 - Train and prepare the peer observers
 - Prepare the students
 - Schedule multiple visits
 - Hold a post-observation conference and/or provide written comments

Peer Assessment & Evaluation of Teaching

- Probably among the most valid and reliable in assessing
 - course goals and objectives
 - content mastery and selection
 - organization, delivery methods and materials
 - evaluation of student work, grading practices
- May be less reliable if classroom observation is the only method used

Administrator Assessment & Evaluation

Administrator Evaluation of Teaching

- Purposes / Uses
 - Evaluation for
 - Annual review
 - Promotion and tenure
 - Teaching awards
- Methods
 - Review of faculty, peer and/or committee generated materials

Administrator Evaluation of Teaching

- Strengths (relate mostly to department chair)
 - Perspective over time
 - Perspective of whole person evaluation
 - Ability to mentor and direct for development and improvement
- Weaknesses / Concerns
 - Reviews materials from others – may need first hand observation

Expert Assessment & Evaluation

Educational Expert Assessment of Teaching

- Purpose / Uses
 - Assessment – mostly
 - Evaluation - possibly
- Methods
 - Review of potentially all aspects of teaching
 - Philosophy
 - Curriculum and course design and delivery
 - Student performance evaluations
 - Responding to teaching evaluations and assessments
 - Consultation
 - Workshops

Educational Expert Assessment of Teaching

- Strengths
 - Individual with educational expertise
 - Reliability increased with a group of experts
 - Follow-up and coaching
 - Additional support through center for teaching and learning
- Weaknesses / Concerns
 - Use for evaluation when not intended

Methods to Enhance Expert Assessment & Evaluation of Teaching

- Construct a plan, complete with purposes, roles, responsibilities, expectations, etc.
- Develop (and test) criteria and data collection instruments (observation checklists, etc.)
- Observation of teaching
 - Determine the purpose: assessment vs. evaluation
 - Prepare the instructor, expert observer(s), students
 - Hold a post-observation conference and/or provide written comments

Other Methods & Considerations

Other Methods to Assess or Evaluate Teaching

- Student performance
 - Pre- / post-course tests and other evaluations
- Classroom assessment techniques (Angelo & Cross, 1993)
- Alumni surveys
- Committees
 - Faculty annual review
 - Promotion & tenure
 - Teaching awards

Post-Tenure Assessment & Evaluation of Teaching

- Continue to assess and evaluate teaching as done previously
- Focus on additional high level activities
 - Setting standards
 - Collaboration with and development of others
- Methods (from Seldin 1999)
 - Annual review - as for all faculty
 - Comprehensive review - every 3 to 6 years, for example
 - Triggered review – based on need

Fundamental Program Components

- Alignment with institutional and unit goals
- Self Assessment
- Peer Assessment
- Student Evaluation
 - End of Course Teaching Evaluation
- Department Chair
 - Annual Evaluation
- Committee
 - Pre-Promotion & Pre-Tenure Assessment
 - Promotion & Tenure Evaluation

Putting it all Together

- Determine the major goals or purposes for assessment and evaluation of teaching
- Create a plan for assessment and evaluation
 - Activities and methods based on Domains & Sources
 - Career timing for activities and methods
 - Uses of information
- Implement the plan
- Assess and redesign the plan if needed

Basic Structure for Assessment & Evaluation of Faculty Teaching

- Each Semester or Quarter
 - Student End of Course Evaluations
 - Every instructor in every course ??
 - Self Assessment
- Annually
 - Self and Department Chair Evaluation
- Every 3 to 6 years
 - Self, Chair, Committee Evaluation
 - Peer & Expert Assessment
- As Needed or Requested
- Change over Time

Summary

- The major purpose for the assessment and evaluation teaching is to enhance faculty's abilities in order to enhance student learning and abilities
- Teaching assessment & evaluation should be multidimensional and systematic

Addendum: Other Resources

- Wilkerson JR, Lang WS. Assessing teacher competency: five standards-based steps to valid measurement using the CAATS model. Corwin Press. 2007.
- Pounder JS. Is student evaluation of teaching worthwhile? An analytical framework for answering the question. Quality Assurance in Education: An International Perspective. 2007;15:178-91.
- Bernstein D. Peer review and evaluation of the intellectual work of teaching. Change. 2008;40:48-51.
- Peel D. Peer observation as a transformatory tool? Teaching in Higher Education. 2005;10:489-504.