

Final Report of the Task Force on Teaching Quality

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A. EXECUTIVE SUMMARY

1. Definition of Teaching (developed by the Task Force on Teaching Quality – hereafter “Task Force”)

Teaching is a facilitation of gains in knowledge, skills, and conceptual comprehension in ways that engage students and instill in them the motivation and ability for deep understanding, along with carry-over capacities to solve novel problems or long-standing problems in new situations.

2. Characteristics of High Quality Teaching in any Modality

- a. **exciting and engaging**, drawing the students into the instructor’s and their own thrill of discovery with clarity as well as passion for the subject;
- b. able to involve the students consistently and effectively in **active learning practices**, including the most effective ways of asking questions, with appropriate attention to students’ cultural orientation, learning styles, and existing skills;
- c. course is **well planned and coherently organized** toward **achievement of student learning outcomes**; and
- d. designed to produce **student work of sufficient quantity and quality** to show each student’s accomplishment of the learning outcomes.

3. Evidence that Departments Value Quality Teaching

- a. department has established a set of **expectations for high-quality teaching** for all categories of instructors and at all levels of the curriculum;
- b. expectations are based upon **effective teaching practices** demonstrated to improve student learning;
- c. department encourages **professional development** toward high-quality teaching;
- d. department encourages **peer coaching or observations** of teaching and consultations with the Office of Instruction and Assessment (OIA) and supports attending workshops or conferences focused on teaching;
- e. department has an **established and transparent process for evaluating teaching quality** for all instructors and the evaluation process includes student evaluations, peer evaluation of teaching, and instructor self-reflection;
- f. evaluation of teaching quality is a key **part of annual evaluations and promotion and tenure reviews**;

- g. department has an **ongoing process** that includes steps in which teaching evaluations are reviewed and incorporated into department plans for both programmatic and individual goals for improvement; and
- h. department actively **supports quality teaching practices for graduate students.**

4. Recommendations

- a. Individuals: To improve quality teaching, **instructors** should:
 - incorporate teaching practices of **active learning**;
 - learn about active learning practices through **workshops or one-on-one assistance**;
 - employ strategies to gather **feedback on student learning** (e.g., one-minute papers, clicker questions, small group discussion followed by reporting out);
 - create opportunities to gather **formative evaluation** information through student feedback (<http://oia.arizona.edu/project/student-focus-group>) and formative **peer observations of teaching** (<http://oia.arizona.edu/project/peer-review-teaching-protocol>);
 - review **resources for teaching improvement** (<http://teaching/oia.arizona.edu>); and
 - contact the **Office of Instruction and Assessment** to learn more about the above teaching improvement approaches (<http://oia.arizona.edu>).
- b. Departments: For departments to enhance quality teaching by departmental faculty, **department heads** should:
 - **encourage faculty and graduate teaching assistants** to be **proactive** about getting teaching tips and ideas from colleagues and professionals in OIA and by attending workshops on teaching at national meetings or on campus;
 - encourage **discussions and presentations on teaching and assessment** during faculty meetings and departmental retreats;
 - nominate appropriate faculty for **teaching awards**;
 - include **quality teaching** as a component to the pre-tenure and post-tenure annual **evaluations**;
 - **discuss among departmental faculty** what constitutes quality teaching for promotion and tenure;

- discuss among departmental faculty what **documentation** is valuable to collect for **teaching portfolios for promotion and tenure**;
- establish the **use of the standard UA Teacher-Course Evaluation (TCE) forms** (<http://tce.arizona.edu/>) for teaching evaluations by everyone in the department;
- make use of Teacher-Course Evaluation tool that permits **comparison to similar types and sizes of courses** for appropriate comparison;
- set-up a process for **regular peer observation of teaching** (<http://oia.arizona.edu/project/peer-review-teaching-protocol>) for all pre-tenure faculty, faculty seeking future promotions, and faculty who would like feedback on teaching;
- peer observation of teaching could be assigned as a **service activity**, that is recognized by the department, to one or two faculty members who are **exceptional teachers** and who use active learning teaching practices;
- assess teaching practices in the department using the **rubric on quality of departmental teaching programs** for the Academic Program Review (see below) and on a regular basis to keep teaching quality high;
- host two or more research **seminars each year on teaching and learning**; and
- provide opportunities for **graduate students to learn about best practices in teaching** through seminars, workshops, or a course on teaching.

B. CHARGE AND MEMBERS

1. Goal of the Task Force

The overarching goal of the task force was to identify measures and mechanisms to characterize teaching quality at the University of Arizona.

2. Charge to the Task Force

- a. Define/characterize quality teaching in undergraduate and graduate education in face-to-face, hybrid, and online environments;
- b. Review protocols/instruments used to evaluate teaching quality;
 - Teacher-Course Evaluations (TCEs)
 - Peer teaching review – OIA protocol
 - Peer teaching review – COPUS protocol (Smith, et al. 2013)

- Evaluation of teaching practices (self-reported survey; Wieman and Gilbert 2013)
 - Teaching portfolio
- c. Review ways to gather evidence of student learning in a course (e.g., pre-post exams, rubric-scored projects);
 - d. Describe the relationship between teaching quality and enhanced student learning;
 - e. Develop a process for evaluating an instructor's teaching quality; and
 - f. Develop a protocol to evaluate teaching quality in a program/department and suggest how this might be incorporated into the Academic Program Review.

3. Task Force Members

- Gail Burd, Chair; Senior Vice Provost for Academic Affairs; Distinguished Professor, Molecular and Cellular Biology; Honors Professor
- Jordon Allison, Undergraduate Student; College of Fine Arts
- Judie Bronstein, Distinguished Professor, Ecology and Evolutionary Biology
- Melody Buckner, Director, Office of Digital Education
- Randy Burd, Assistant Vice President, Program Innovation; Associate Professor, Nutritional Sciences
- Celestino Fernández, University Distinguished Outreach Professor; Director of Undergraduate Studies, Sociology; Honors Professor
- Kate Follette, Graduate Student, Astronomy
- Gretchen Gibbs, Associate Professor of Practice, Office of Instruction and Assessment
- Elena Gold, Undergraduate Student; Undergraduate Council, College of Social and Behavioral Sciences
- Jerry Hogle, Distinguished Professor, English
- Wanda Howell, Distinguished Professor, Nutritional Sciences
- Bobbie McKean, Associate Professor, Theatre, Film, and Television; Director, Bachelor of General Studies; Associate Director, Theatre Programs Professional Programs
- Roger Miesfeld, Professor and Head, Chemistry and Biochemistry
- Bill Neumann, Professor of Practice, Management and Information Systems; Director, BS/MS; Honors Professor
- Ingrid Novodvorsky, Director of Teaching, Learning & Assessment, Office of Instruction and Assessment; Director, Science Teacher Preparation Program
- Cindy Rankin, Lecturer, Physiology; Honors Professor
- Jerzy Rozenblit, Distinguished Professor, Electrical and Computer Engineering; Honors Professor
- Deb Tomanek, Associate Vice Provost for Instruction and Assessment; Professor, Molecular and Cellular Biology and the Science Teacher Preparation Program
- Dee Hill Zupanelli, Graduate Student, Sociology

C. BACKGROUND INFORMATION

1. Introduction: Teaching and Learning

Learning may be accomplished by memorizing and remembering facts. However, as university instructors, we have higher goals. We want our students to understand ideas and to learn with meaning. As students learn with meaning, several good things happen beyond the skill of remembering. For example, students become more able to:

- recognize meaningful patterns of information (Bransford et al. 1989; Glaser and Chi 1988);
- organize knowledge as big ideas (Larkin and Simon 1987; Wineburg 1991);
- retrieve relevant, rather than simply available, sets of information stored in memory (Beilock et al. 2002; Bransford and Stein 1993; Landsdown 2002; Peeck et al. 2007); and
- use knowledge in increasingly flexible ways (Hatano and Inagaki 1986; Lowenstein et al. 2003).

When meaningful learning occurs, instructors are able to see demonstrations of these abilities as students engage in the learning activities we create for our classes. The learning activities should serve the dual purposes of making students' thinking visible to us and providing students with practice in building their abilities to engage in meaningful learning (Vye et al. 1998).

How should instructors provide opportunities for these important abilities to develop? Research on teaching and learning, at all ages, has shown that the degree to which students are successful at accomplishing meaningful learning depends upon:

- what they already know and believe (Alexander and Murphy 2000; Carey and Gelman 1991; Gardner 1991; Kole and Healy 2007; National Research Council 2000; Vygotsky 1978);
- the proportion of their learning time devoted to conceptual understanding rather than memorizing (Novick and Holyoak 1991);
- the use of metacognitive learning practices (Bielaczyc et al. 1995; Fu and Gray 2004; Mathan and Koedinger 2005; Palincsar and Brown 1984; Pintrich 2000; Scardamalia et al. 1984; Zimmerman 2001);
- time to work with the content of interest before receiving lectures or explanations (Schwartz and Bransford 1998);
- the contexts in which concepts/problems are presented (Scardamalia et al. 1984; Schoenfeld A.H. 1991; Schwartz et al. 1999; White and Fredrickson 1998.); and
- students' motivation to learn (Cognition and Technology Group at Vanderbilt 1998; Cury et al. 2006; Dweck 1989; Elliott and Fryer 2008; Pintrich and Schunk 1996).

If meaningful student learning, and not simply remembering, is to occur in our classes, our instructional decisions must include learning activities built upon these key findings from research on learning. For example, the use of pre-testing, built partially on the idea of beginning instruction on a topic by testing college students' initial knowledge, was shown to result in more learning than when students just studied with no initial testing. The phenomenon is called the

testing effect (Roediger III and Karpicke 2006). The importance of frequent feedback in advancing students' meaningful learning is well supported by research findings (see Hattie and Temperly 2007 for a review of this literature). Working with experimental data sets prior to receiving lectures, as compared to reading and then hearing the same lectures, resulted in greater learning gains among college students, an instructional decision built upon the notion of an appropriate "time for telling" (Schwartz and Bransford 1998). Teaching with learning cycles is another way to build upon research findings that demonstrate the importance of having students explore content before receiving lecture on the content (Lawson 2001). Many of the teaching and learning studies referenced above involve the use of teaching strategies associated with *active learning* environments (e.g., think-pair-share, reciprocal peer teaching, Predict-Observe-Explain). Our choices to use active learning strategies should always start with consideration of how the strategies build upon research on how people learn (Ambrose et al. 2010; Brown et al. 2014; National Research Council 2000, 2012). Additionally, our instructional choices should be informed by the growing body of evidence that demonstrates the effectiveness of active learning strategies over traditional lecturing (Freeman et al. 2014).

2. Evidence of Student Learning in a Course

The most significant measurement of teaching quality is evidence of student learning that is concert with the learning outcomes designated for the course. Students may learn many concepts and skills that extend beyond the designated learning outcomes, but these may be difficult to identify and measure.

The first step in gathering evidence of student learning in a course is to establish a set of expected learning outcomes for the course. These expected learning outcomes are statements that describe the knowledge, skills, and perceptions that students are to demonstrate upon completion of the course. They

- represent what faculty members most value for student learning in the course;
- are written with concrete verbs such as "define," "apply," "analyze," or "interpret;"
- identify for students what they should know and be able to do by the end of the course; and
- are measured in assessment activities conducted throughout the course.

Once the expected learning outcomes are identified, the next step is to determine the extent to which students have met the outcomes by developing various assessment activities. These activities could include:

- pre-/post-tests, which allow comparison between what students understand before and after the instruction or entire course;
- selected final-exam items that are linked to expected learning outcomes; and
- course projects that are scored using rubrics in which the rubric criteria are linked to the expected learning outcomes.

This evidence of student learning is more fine-grained than overall course grades and can be linked to individual expected learning outcomes. Course grades typically include performance on a number of measures that represent overall learning, but don't distinguish performance on individual expected learning outcomes.

For promotion and tenure documentation of teaching quality, evidence of student learning is a stronger measure of quality teaching than Teacher-Course Evaluations and complements peer evaluation of teaching, the self-study documentation in the teaching portfolio, student letters, and teaching practices surveys. Stark-Wroblewski et al. (2007) recommend that the pre-post learning measures be added to assessment of teaching quality. They also indicate that student evaluations provide different evidence of teaching effectiveness than do measures of student learning.

3. Evaluation of Teaching Quality

As stated in a chapter by Burd, et al. (2014): “There are no short cuts if proper evaluation of teaching is to be accomplished. Several mechanisms are used to evaluate teaching quality. These include:

- teacher-course evaluations by students in the course,
- focus group interviews with faculty and students,
- self-survey of faculty teaching practices,
- student learning gains,
- classroom observations of teaching practices,
- peer observations of teaching for formative and summative evaluations,
- team teaching with instructional feedback, and
- portfolios assembled by faculty to document teaching quality through description of teaching practices and innovations, students learning outcomes, peer observations of teaching, and faculty teaching awards.

No one mechanism is perfect by itself, but collectively, several different sources of information can provide a clear picture of teaching quality.” Another resource for evaluation metrics for college teaching quality is *Thirteen Strategies to Measure College Teaching* (Berk 2006).

The best approach to measure teaching quality is to include multiple measures such as the Teacher Course Evaluations, peer evaluation, and student learning outcomes using a variety of approaches (for example, pre and post learning measures, performance in the following course in the curriculum, etc.). The documentation can take the form of a teaching portfolio that can be used for promotion and tenure reviews and annual reviews for single faculty, or as part of the academic program review using the collective data from the department faculty as well as to measure teaching improvements over a series of years.

4. Graduate Teaching Assistants

Serving as a Graduate Teaching Assistant (TA) should be a valued, organized, and beneficial professional experience. Faculty who elect to have graduate TAs should see them as a junior colleague to be trained. Graduate teaching assistantships can and should be a beneficial professional development experience for the graduate student since teaching and communication skills are invaluable in both academia and in industry. The following provides information about best practices for graduate teaching assistantships that can help improve TA practices within your own department.

a. Contracts

Have graduate students and supervising faculty draft a contract before the semester begins. These contracts should detail the expected time commitment and duties of the position, should be negotiated based on the needs and desires of both parties, and should be approved and kept on file by the department for arbitration when necessary. This should engender a mutual understanding of the expected time commitment and duties, and will provide much-needed structure to the TAs without requiring that TA duties be standardized. It will also give TAs a venue to request the specific experiences that they feel would be the most beneficial in their professional development.

b. Improved Training

All departments should offer TA training at the departmental level, and should not rely on the required TATO/GATO module as the sole source of TA training. That module (<http://grad.arizona.edu/financial-resources/ua-resources/employment/ga-manual/mandatory-trainings>) is intended to inform TAs of general University regulations related to disability compliance, sexual harassment, plagiarism, etc. and is not intended to be the sole source of classroom training. Optional TATO modules are available (<http://oia.arizona.edu/project/teaching-assistant-training-online-tato>) on the topics of writing learning objectives, leading discussions, and assessing student writing. Examples of good training practices already in place in University of Arizona departments include: pre-semester training seminars, weekly TA meetings, TA shadowing, faculty mentoring, and discipline-specific college teaching classes.

c. Teaching Opportunities

Faculty should work closely with their TAs to encourage and prepare them to teach a discussion or lecture section several times throughout the semester. This has the potential to provide invaluable experience in teaching and communication. Currently, lecturing is most often performed by TAs only when faculty need a substitute, but would be much more beneficial as a professional development experience if faculty were present to provide feedback. Faculty should be open with their classes about the necessity of teaching training for their graduate TAs.

5. Best Practices in Online Teaching and Learning

Teaching and learning online presents new challenges for faculty and students participating in this teaching/learning approach.

This section addresses three key areas of best practices for online teaching and learning: 1) planning and development; 2) facilitation of the learning; and 3) assessment of learning outcomes.

a. Planning

In the planning and develop stage, it is important that pedagogy dictates the selection and use of learning technologies. Learning standards must be achieved regardless of the modality of delivery of content. Development of learning objects and clear

communication are keys to a successful planning phase. Guidelines for creating learning objectives should at least include the following: 1) be written in terms of observable behavioral outcomes; 2) focus on student-centered learning; 3) be specific and target one area of understanding; and 4) be measureable and include criteria for student assessment.

b. Facilitation

Successful facilitation of learning is dependent upon the level of interaction of student-to-content, student-to-student, and student-to-instructor. Several strategies exist, but two direct strategies for achieving this goal are incorporating online discussions into the course design and creating opportunities for student collaboration. These mechanisms promote constructivist, critical and high-order thinking skills and lead to decision-making and problem-solving skills for students. Other ideas that foster successful facilitation of online courses include: 1) Online student orientations; 2) Specific course goals, expectations and policies; 3) Easy to navigate and friendly learning environment that builds a safe learning community; 4) Active learning events that engage the students; 5) Model effective online interactions; 6) Monitor progress and encourage lagging students; 7) Assessment and feedback in online discussions; 8) Motivate student through feedback and support; 9) Teach students to regulate their own learning; 10) Be aware of the impact of multiculturalism; and 11) Confront conflict promptly.

c. Presence and Community

In addition to facilitation, instructors must have a virtual presence in the course and create an environment where students feel a sense of community. A presence is developed when an instructor appears virtually in the classroom daily or multiple times per week. The instructor should set times at regular intervals and use various modalities for synchronous or asynchronous interaction. Promoting dialogue can create a sense of a supportive community. Faculty-to-student dialogue can be accomplished through recorded lectures, routine prompts and other interactions. Student-to-student interaction can be promoted through introduction exercises, group projects and problem solving discussions that encourage students to seek help from each other and work in groups.

d. Assessment

Best practices of student assessment in the online environment include the following recommendations: 1) the use of several methods to evaluate students; 2) review of learning outcomes for clarity, utility and appropriateness; 3) flexible and timely evaluations; 4) monitoring or proctoring policies; 5) verification to ensure academic integrity; 6) variety of strategies are used to achieve instructional goals; and 7) the assessment criteria are clearly outlined. It is also recommended that the online instructor gather and analyze student evaluation data during and after the course to adjust and improve content, pedagogy and technology.

In addition to formal assessment, it is critical that expectations are established for teacher-student communication. For example, the instructor should be clear about when assessment results or performance metrics will be communicated with students. In that regard, it is also important to indicate the response time students should expect when they

email the instructor with a question. Students should be made aware of virtual office hours or times for help or feedback and provided with a set of expectations of effort.

e. Other Issues

Finally, it is important for online faculty to follow best practices on intellectual property, issues of accessibility or universal design for learning principles, time management skills, and to participate in learning communities of online teaching peers.

Reference: Hanover Research Council website

<http://www.uwec.edu/AcadAff/resources/edtech/upload/Best-Practices-in-Online-Teaching-Strategies-Membership.pdf>

Best Practice Reference:

<http://www.designingforlearning.info/services/writing/ecoach/tenbest.html>

D. TOOLS FOR ASSESSING TEACHING QUALITY

1. Student Evaluations in Face-to-Face and Hybrid Courses

Prior to a January 2014 workshop at the University of Arizona on “Peer Evaluation of Teaching,” the 73 participants responded to a survey on teaching evaluations.

“What do you currently do to receive feedback on the quality of your teaching?”

Responses included:

- 85% used teacher-course evaluations by students;
- 14% reported that they only used peer reviews, and presumably do not use student evaluation or do not think the student evaluations provide feedback on teaching quality;
- 36% used some peer review or team teacher feedback; and
- 8% used graduate teaching assistant feedback.

“Because so many faculty use teacher-course evaluations, we need to explore the pros and cons of student evaluations of the course and the teacher(s) as an assessment tool of teaching quality. In a 1997 review of research on student evaluations of teaching effectiveness, Marsh and Roche state ‘students’ evaluations of teaching (SETs) are (a) multidimensional; (b) reliable and stable; (c) primarily a function of the instructor who teaches a course rather than the course that is taught; (d) relatively valid against a variety of indicators of effective teaching; (e) relatively unaffected by a variety of variables hypothesized as potential biases (e.g., grading leniency, class size, workload, prior subject interest); and (f) useful in improving teaching effectiveness when SETs are coupled with appropriate consultation.’ The authors indicate that the teacher-course evaluations are a sufficient assessment tool for effective teaching when combined with other sources of information. Faculty, departments, and institutions use student evaluations because they are relatively easy to do, give the students a voice in the evaluation process, and provide quantitative data important for comparisons with other faculty and for a single faculty member

over time. Students, however, lack the experience to evaluate fully the content knowledge of the instructor and the value of the concepts selected for the class. Furthermore, students may be unaware of teaching strategies that their instructor could use to more fully support their learning.” (Burd, et al. 2014)

The quantitative value of student evaluations has recently been questioned by Stark and Freistat (2014; pdf online at <http://www.stat.berkeley.edu/~stark/Preprints/evaluations14.pdf>). In an interview with Dan Berret (2014), Stark noted that students often interpret every question on the evaluation as “Did I like the Professor?”, thus, student evaluations “can paint a limited picture”. Yet, students can provide appropriate feedback on a variety of important teaching techniques, including “clarity, pace, legibility, audibility, and availability” (Stark and Freistat 2014). In addition, student comments on the course/teaching are a useful part of the evaluation of teaching quality. Stark states: “If we want to understand what’s going on in the classroom, we actually have to look at it. You can’t subcontract the evaluation of teaching to students.” (Berret 2014). Stark and Freistat note that a review of teaching quality needs to include peer observation of the teaching, teaching materials, student work, and exams, as well as surveys of former students.

To address teaching quality more directly in the Teacher-Course Evaluations, this Task Force recommends the inclusion of the following new items:

- **The instructor helps me learn by using active learning strategies (for example, in-class discussion, use of clicker-type questions, group projects, in-class group activities, student performances).**
- **The instructor challenges me to think critically about the concepts related to this course.**
- **The instructor inspires interest in the subject matter of this course.**

Furthermore, we suggest that peer observation of teaching is a highly effective way to address some of the shortcomings associated with using teacher course evaluations when evaluating teaching quality (see below).

2. Online Course Review

There are several factors that affect the quality of online courses. However, this section will focus on a peer review process for *course design*. Quality Matters is a faculty-centered, peer review process that was created through a collaborative, rigorous, research process to certify the quality of online course design. Faculty peer review an online course based on a rubric with the following standards:

- a. The overall design of the course is clear to the students;
- b. The learning objectives are measurable and clearly stated;
- c. The assessment strategies are designed to evaluate student progress and the effectiveness of student learning;
- d. The instructional materials are sufficiently comprehensive to achieve the learning objectives;
- e. The forms of interaction incorporated in the course motivate the students and promote learning;

- f. The course technology support student engagement and access to course components;
- g. The course points students to institutional support services essential to student success; and
- h. The course is committed to accessibility principles for all students.

Before a faculty member can become a Quality Matters Peer Reviewer, s/he must have taught an online course within the past 18 months and completed the professional development course called Apply the QM Rubric. In this course, the faculty member will learn about all of the standards in the QM Rubric and how to effectively conduct a review of a peer’s online course.

This is a continuous process that assists faculty in creating an effective learning environment for student success.

3. Peer Review of Teaching

Another question was asked of the participants at the January, 2014, UA workshop on “Peer Evaluation of Teaching”.

“Do you believe that having peer review of your teaching is useful?”

Most participants indicated that peer review would be valuable. A few participants noted, however, that who did the review, how the review was done, and for what purpose would be important questions to consider.

Peer review of teaching is now a required component of the tenure dossier at the University of Arizona. Recognizing that peer observation of teaching for formative or summative reviews can create workload challenges for departments, one approach to managing it might be to make peer observations a component of faculty service to the department and to give the faculty member(s) who perform the observations credit under the service component of annual reviews.

Peer review of teaching can cover a number of different topics with regard to the course and instruction. An interactive website was produced by OIA that includes eight potential topics for formative or summative peer observations of teaching (see <http://oia.arizona.edu/project/peer-review-teaching-protocol>).

| | Topics for UA Classroom Observation Tool |
|---|---|
| 1 | Lesson Organization |
| 2 | Content Knowledge |
| 3 | Presentation |
| 4 | Instructor-Student Interactions |
| 5 | Collaborative Learning Activities |
| 6 | Lesson Implementation |
| 7 | Instructional Materials |
| 8 | Student Responses |

a. Formative Review

Formative peer observation is used for improvement of teaching. This should be done in a way that is not threatening to faculty. Formative evaluation can be provided by faculty peers or by members of OIA. Since the OIA is used for faculty support and professional development, OIA staff should not be asked to do evaluations for promotion and tenure or annual evaluations. These summative evaluations would create an uneasy tension and can lead to suspicion and mistrust on the part of the faculty. Also, professionals most often do not have academic backgrounds in the discipline of the faculty member under review and, thus, could not provide the review of course content.

The issues of who should do the review, what they should review, and how the review should be performed have been covered on the UA OIA website for Peer Review of Teaching (see <http://oia.arizona.edu/project/peer-review-teaching-protocol>).

Formative evaluation is peer observation designed to be used to improve teaching, and information from the observation should go only to the faculty member being observed. Thus, the faculty member seeking formative evaluation should identify a colleague s/he perceives to be an excellent teacher and preferably someone who uses best teaching practices that have been shown to improve student learning.

The following table is taken from a chapter on peer review of teaching by Burd, et al. (2014) and also appears on the UA OIA Peer Observation Protocol website.

| Recommendations for Formative Peer Review of Teaching using the UA Peer Observation Protocol | |
|---|--|
| 1. | Pre-observation meeting to discuss the target class and goals for the observation <ul style="list-style-type: none"> • Instructor provides overview of the course • Instructor outlines what will take place during the observed class period(s) • Instructor indicates the learning goals of the lesson(s) • Instructor discusses the type of feedback he/she hopes to receive • Instructor and observer select the topics and items from the observation tool |
| 2. | Observer visits the target class(es), completes the Classroom Observation Tool, and prepares a written summary of the observation |
| 3. | Post-observation meeting to discuss the observed class(es) <ul style="list-style-type: none"> • Observer asks the instructor what he/she thinks worked well in the lesson • Observer asks the instructor what he/she thinks could have been improved • Observer comments on selected items from the Classroom Observation Tool. The selected items may include: <ol style="list-style-type: none"> a. organizational skills and instructional approaches observed during the class period, b. clarity of the instructions and responses to questions, c. apparent attitude of the students and their time on task during the class period, and d. summary or closure of the lesson at the end of the class. • Feedback should be: |

| | |
|----|--|
| | <ul style="list-style-type: none"> a. focused on improvements, b. non-judgmental, c. offer constructive suggestions as options, d. action oriented, and e. given in ways that have the instructor develop ownership of the ideas. |
| 4. | This cycle could lead to another class observation by the same observer to provide further feedback on any changes that the instructor made after the previous observations. |

The UA template for peer observation of teaching includes several observation items under each topic and can be filled out online during the observation. The website provides suggestions for the review process, offers a menu of observation items, and leads to an interactive rubric that can be used at the time of the observation.

b. Summative Review

The following paragraphs are taken from Burd, et al. (2014).

“Unlike formative peer observation of teaching, summative peer observations are designed to provide an evaluation of the faculty member’s teaching that will go to the department head, promotion committee, or in other ways be used for promotion and tenure. The faculty, department head, and dean need to agree in advance of any evaluations what aspects of teaching will be included in peer observations for annual evaluations and for promotion and tenure reviews. They should also approve an observation rubric that will be used for all teaching evaluations in the department. It is critical that these reviews be fair, consistent and reliable across different observers, and compatible with accepted standards of good teaching. Furthermore, there should be more than one observation, observations should cover the full class period, a consistent and approved rubric should be used during the observation, the observation should be preceded by a pre-observation meeting and followed by a post-observation meeting, and the faculty member should receive a copy of the observation report. Ideally, two or more faculty reviewers will participate in the observations, but this can create workload challenges for a small department.

Institutions have a need for summative evaluation of teaching quality. The selection of the peer faculty member(s) who will provide summative evaluations for promotion and tenure requires careful consideration by the department chair. Often the department chair will want to select a senior faculty member for this task. However, young faculty may be more innovative and more likely to use evidence-based teaching practices, while senior faculty may use traditional lecturing in their teaching. Challenges may arise if the selected evaluator is unfamiliar with current teaching practices that use active-learning instructional practices; the class can seem chaotic or unfocused to a traditional lecturer making the observation.

At the University of Arizona, peer review of teaching is now a required component of the tenure package. At other colleges and universities, this summative peer evaluation of teaching may take

place annually for all faculty or only for the untenured faculty, at a pre-tenure review (most often three years into an assistant professor position), the year before the tenure decision, the year before any faculty promotion, or as part of a required teaching improvement plan.”

4. Teaching Portfolio

The teaching portfolio is essentially a self-study prepared by a faculty member for peer review prior to review for tenure (usually after three years as assistant professor), at the tenure review, and during all promotion evaluations. It should include a statement of teaching philosophy and a description of teaching pedagogies used for undergraduate and graduate instruction. It should also contain documentation of the quantity and quality of teaching, a reference list to any scholarly publications on teaching, and student learning outcomes.

The content of the teaching portfolio should be assembled to reflect the faculty member’s teaching activities and approaches, but should not include a laundry list of every concept taught, every exam and all written assignments, etc. It should be representative of the faculty member’s teaching since the previous review (in the case of promotion) and since the start of the tenure clock (in the case the tenure review). Furthermore, the faculty and head of the department should discuss and recommend the items that should be included in all teaching portfolios of faculty members reviewed for promotion and tenure.

For additional information, see:

<http://facultyaffairs.arizona.edu/sites/facultyaffairs/files/2015-06-teachingportfolio.pdf>

a. Criteria for Evaluation of Teaching Portfolios

The following criteria can be used as guidelines for departmental committee review of Teaching Portfolios. A department may include additional criteria that are valued in the unit as indicators of teaching excellence. This collection of criteria can then be used to evaluate the candidate’s teaching portfolio.

- **Overall Content**

All applicable components are included (e.g., candidate statement, list of courses taught, list of advising and mentoring activities, contributions to instructional innovations and collaborations, teaching awards, teaching grants, course syllabi, TCE forms, student comments, and TCE summary sheet).

- **Candidate Statement**

The candidate statement addresses the principles that guide the candidate’s teaching and provides an appropriate introduction to the candidate’s Teaching Portfolio. The statement includes a description of the candidate’s teaching goals, teaching methods, assessment of student learning, mentoring goals and practices, as well as the candidate’s overall teaching impact.

- **Student Learning Outcomes**

The Teaching Portfolio clearly identifies the student learning outcomes for courses the candidate has taught; these can be included in the course syllabi that are included. These outcomes are

clear and measurable, and are aligned with the department's program-level learning outcomes. The candidate describes how these learning outcomes are an integral aspect of his/her teaching.

- **Active Learning Strategies**

The Teaching Portfolio clearly identifies the active learning strategies the candidate has used in the courses s/he has taught: e.g., class discussions, student performances, clicker questions, in-class small-group activities, group projects. The candidate describes how these strategies are an integral aspect of his/her teaching.

- **Student Assessment**

The Teaching Portfolio clearly identifies the ways in which the candidate assesses students' attainment of the learning outcomes for each course. The assessment activities are appropriate measures of the courses' learning outcomes. Where appropriate, these assessment activities are also useful for program-level outcome assessment.

- **Professional Development**

The Teaching Portfolio clearly identifies the candidate's involvement in professional development related to teaching. This may include participation in professional development (teaching workshops, OIA coaching, attending education conferences) and/or leading professional development related to teaching.

5. Measuring the Teaching Quality of a Department or Academic Program

One goal of this Task Force has been to develop a mechanism that could be used in the Academic Program Review self-study and would demonstrate the quality of teaching performed by faculty in the department. Measures could include TCEs, demonstration of student learning in department courses, and peer review of teaching. The goal is to document that the department takes its teaching mission seriously, makes efforts to improve, and shows improvement over time. Graphs, pie charts, and tables with data on teaching quality could be used.

a. Rubric for Evaluating Departmental Teaching Quality

We propose that the following rubric be used to assess teaching quality in a program or department undergoing Academic Program Review. The rubric will be used by the APR self-study committee and department head to provide an evaluation of the quality of teaching done in the department. It will also provide a context for the self-study committee and department head to discuss what improvements are planned for the future. The self-study committee and department head will need to describe what evidence they have used to document teaching quality for the evaluation and provide that evidence as an appendix in the report. Unlike the review of the assessment plan, activities, findings, and changes in response to findings that are part of the APR process, the review of teaching quality data would be done solely by the department self-study committee and department head and presented in the self-study for the APR Committee review.

Note: In the rubric instructors are defined as tenured or tenure track faculty, professors of practice, lecturers, and adjunct lecturers. Teaching assistants who are the instructors-of-record for a course may

be considered under this rubric, but departments are expected to provide documentation demonstrating that teaching assistants receive significant departmental training on teaching and grading practices before they begin teaching and should be mentored and report to a member of the faculty or lecturer while they are a teaching assistant.

Rubric for Self-Assessing Departmental Teaching Quality in the APR Self-Study

| Indicate the self-assessment rating with a brief rationale in the appropriate cell. | | | Criteria for Assessing Teaching Quality |
|---|-------------------|--------------------------|---|
| <i>Exemplary</i> | <i>Developing</i> | <i>Needs Development</i> | |
| | | | <p>Expectations for Teaching Quality: A department is EXEMPLARY for this criterion if it has established a set of expectations for high-quality teaching at all levels of the curriculum that are clearly conveyed to all instructors. Expectations are based upon effective teaching practices demonstrated to improve student learning outcomes. All instructors are held to these expectations to the extent that is appropriate to the classes they teach and the terms of their appointments.</p> |
| | | | <p>Support for Teaching Development: A department is EXEMPLARY for this criterion if it has in place standard processes for encouraging professional development towards high-quality teaching across the whole unit. These processes include the provision of clear information about and ready access to resources, inside and outside the department, that can help all instructors develop the quality of their teaching. All these processes are aligned with the department's established expectations for teaching quality. Avenues for development may include, but need not be limited to, peer coaching, consultations with OIA, and support for attending workshops and conferences focused on enhancing the quality of teaching.</p> |
| | | | <p>Evaluation of Teaching: A department is EXEMPLARY for this criterion if it has an established and transparent process for evaluating teaching quality for all instructors. The evaluation criteria are tightly linked to the department's established set of expectations for teaching quality. The evaluation process includes, but is not limited to, student evaluations, peer evaluation of teaching, and instructor self-reflection. Evaluating teaching quality is a key part of annual reviews as well as promotion and tenure reviews.</p> |
| | | | <p>Applying Findings to Teaching Improvements: A department is EXEMPLARY for this criterion if it has an ongoing process that includes steps in which teaching evaluations are reviewed and incorporated into department plans for both programmatic and individual goals improvement. All steps of this application phase are linked to the department's established set of expectations for teaching quality.</p> |

E. TIMELINE FOR IMPLEMENTATION

Develop and implement a communication plan for distribution Spring 2015 to inform the campus (deans, associate deans, department heads, faculty members (via the faculty senate), and student leaders) about our:

- definition and description of quality teaching;
- evidence that departments value quality teaching;
- recommendations to individuals about how to improve teaching quality;
- recommendations to departments about how improve and measure teaching quality; and
- recommendations for documentation of teaching quality in the Promotion and Tenure process, including peer observation of teaching and a teaching portfolio.

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G. APPENDICES

1. UA Teacher Course Evaluation – New Short Form

1. What is your overall rating of this instructor's teaching effectiveness?
 - almost always effective
 - usually effective
 - sometimes effective
 - rarely effective
 - almost never effective
2. What is your rating of this instructor compared with other instructors you have had?
 - one of the most effective
 - more effective than most
 - about as effective as most
 - less effective than most
 - one of the least effective
3. What is your overall rating of this course?
 - one of the best
 - better than average
 - about average
 - worse than average
 - one of the worst
4. I was treated with respect in this class.
 - strongly agree
 - agree
 - uncertain
 - disagree
 - strongly disagree
5. Rate the overall usefulness of in-class meeting time activities (e.g. lectures, discussions, teamwork, labs, etc.) in helping you achieve important course goals and objectives.
 - almost always useful
 - usually useful
 - sometimes useful
 - rarely useful
 - almost never useful
 - not applicable
6. Rate the overall usefulness of outside (not in class) assignments (homework, papers, reports, special projects, online work, etc.) in helping you achieve important course goals and objectives.
 - almost always useful
 - usually useful
 - sometimes useful
 - usually not useful
 - almost never useful
 - not applicable
7. Rate the overall usefulness of assigned texts and readings (print or online) in helping you achieve important course goals and objectives.
 - almost always useful
 - usually useful
 - sometimes useful
 - usually not useful
 - almost never useful
 - not applicable
8. Rate the overall usefulness of online instructional tools and technology in this course (e.g. D2L, Blackboard, Elluminate, Moodle, etc.) in helping you achieve important course goals and objectives.
 - almost always useful
 - usually useful
 - sometimes useful
 - usually not useful
 - almost never useful
 - not applicable
9. How difficult was this course for you?
 - much more than usual
 - more than usual
 - about the same as usual
 - less than usual
 - much less than usual

10. How much do you feel you have learned in this course?
- much more than usual
 - more than usual
 - about as much as usual
 - less than usual
 - much less than usual
11. How much work was required for success in this course?
- much more than usual
 - more than usual
 - about the same as usual
 - less than usual
 - much less than usual
12. How well has your previous learning and course work prepared you for success in this course?
- much more than usual
 - more than usual
 - about the same as usual
 - less than usual
 - much less than usual
13. How much effort overall have you put into this course?
- much more than usual
 - more than usual
 - about the same as usual
 - less than usual
 - much less than usual
14. To what extent did the course require participation in online instructional activities (individual and/or group)?
- much more than usual
 - more than usual
 - about the same as usual
 - less than usual
 - much less than usual
15. On average, how many hours per week do you spend on this class, including attending class, doing readings, reviewing notes, and any other course-related work?
- Under 2
 - 2-3
 - 4-5
 - 6-7
 - 8-9
 - 10-11
 - 12-13
 - 14-15
 - 16-17
 - 18-19
 - 20-21
 - 22 or more
16. Of the total hours you spent on this class, how many were valuable in advancing your education?
- almost all valuable
 - more than half valuable
 - about half valuable
 - less than half valuable
 - almost none valuable
17. Your most likely final class grade?
- A
 - B
 - C
 - D
 - E
 - F
 - or Fail
 - Pass or Satisfactory
 - Other
18. My grade point average is.
- 3.50-4.00
 - 3.00-3.49
 - 2.50-2.99
 - 2.00-2.49
 - below 2.00
19. My class is
- freshman
 - sophomore
 - junior
 - senior
 - graduate student
 - other
20. In your program this course is:
- elective
 - required and in major area
 - required, but not in major

- program req. (e.g., GenEd)
 - Other
21. Your major area of study?
- agriculture
 - architecture
 - business or public administration
 - education
 - engineering/mining/comp sci
 - fine, performing, or media arts
 - health-related professions
 - humanities
 - life sciences
 - physical sciences, mathematics
 - social & behavioral science
 - other
22. The instructor helps me learn by using active learning strategies (for example, in-class discussion, use of clicker-type questions, group projects, in-class group activities, student performances).
- strongly agree
 - agree
 - uncertain or neutral
 - disagree
 - strongly disagree
23. The instructor challenges me to think more critically about the concepts related to this course.
- strongly agree
 - agree
 - uncertain or neutral
 - disagree
 - strongly disagree
24. The instructor inspires interest in the subject matter of this course.
- strongly agree
 - agree
 - uncertain or neutral
 - disagree
 - strongly disagree
25. What did you especially like about this course?
OPEN TEXT BOX
26. What suggestions would you make to improve this course-section?
OPEN TEXT BOX
27. Please write any additional comments you may have below.
OPEN TEXT BOX

2. UA Teacher Course Evaluation – Long Form

Additional Long Form Questions

Almost Always –More than half the time –About half the time –Less than half the time –Almost never

1. The instructor speaks clearly and audibly.
2. The instructor maintains my attention when presenting information.
3. The pace of this course is appropriate for me.
4. The instructor uses examples and illustrations that help clarify the topic.
5. I understand the relationships among the topics covered in this course.
6. I know which information is essential and which is minor.
7. The instructor clearly defines new or unfamiliar terms.
8. The instructor signals transitions when changing topics.
9. I understand the purpose of the class sessions and instructional activities.
10. This course challenges me to think.
11. I feel comfortable asking questions or making comments in this course.
12. The course activities and material are appropriate for my level of experience and ability.
13. The instructor clears up points of confusion for me.
14. The instructor returns exams and assignments promptly.
15. Class time is used effectively.
16. The instructor is punctual in meeting class and office hour responsibilities.

Strongly Agree –Agree –Uncertain –Disagree –Strongly Disagree

17. The syllabus and other course overviews help me understand the goals and requirements of this course.
18. The subject matter of this course is interesting/exciting to me.
19. The instructor inspires excitement or interest in the subject matter of this course.
20. The instructor relates course material to relevant real life situations when possible.
21. The instructional approach is consistent with the goals presented by the instructor.
22. The instructor gives helpful feedback about my work in this course.
23. The instructor provides assistance on an individual basis outside of class when I need it.
24. The instructor advises students on how to prepare for tests and assignments.
25. I know how my performance will be evaluated.
26. Grades are assigned fairly in this course.

3. UA Teacher Online Course Evaluation – *DRAFT FORM*

Section A

1. What is your overall rating of the instructor's teaching effectiveness?
2. What is your overall rating of this online instructor compared with other online instructors you have had?
3. What is your rating of this course?
4. I was treated with respect in this class?

Section B

5. The instructor inspires excitement or interest in the subject matter of the course.
6. This course challenges me to think.
7. The instructor helped me to learn through active learning strategies such as discussions, small-group activities, performances, or group projects.

Section C

In the online course:

8. There were "getting started" instructions from the person teaching the course.
9. There was an introduction of the instructor and the teaching assistances.
10. It was made clear how to communicate with the instructor and the teaching assistants.
11. There were clear instructions on how to communicate with other classmates.
12. There were clear instructions explaining the learning and performance expectations of the course.
13. The instructor showed respect and concern for students.
14. The instructor clearly communicated the concepts of the course content/lesson.
15. The instructor clarifies areas of confusion.
16. The instructor uses teaching methods that enhance my learning.
17. The instructor uses technology effectively to advance my learning.
18. The assignments and exams accurately measure what I have learned.
19. The instructor provided feedback that improved my understanding of the course content and the quality of my work.
20. The feedback provided on assignments and exams were returned in a timely manner to benefit my learning.
21. The instructor provides clear evaluation criteria.
22. The instructor grades consistently with the evaluation criteria.
23. The instructor keeps up to date on course communication.

Rate overall usefulness of each of the following in helping you achieve important course goals and objectives: (*Scale is almost always useful to almost never useful*)

24. In-class meeting time activities (e.g. lectures, labs discussions, teamwork, etc.)
25. 'Outside' (not in class) assignments (homework, papers, reports, special projects, online, work, etc.)
26. Assigned texts and reading (print or online)
27. Online instructional tools and technology in the course.

Rate the following statements regarding your online course: (*Scale is almost always useful to almost never useful*)

- 28. The content and information was well organized and easy to find.
- 29. The lessons and activities were thoughtfully prepared and well planned.
- 30. The lessons and activities prepared me for the graded assignments or exams.
- 31. The instructor used the online course tools (discussions, quizzes, groups, etc.) to promote engagement and learning.

Rate each of the following compared to other courses you have taken: (*Scale is much more useful to much less useful*).

- 32. How difficult was this course for you?
- 33. How much have you learned in this course?
- 34. How much work is required for success in this course?
- 35. How well has your previous learning and course work prepared you for success in this course?
- 36. How much effort overall have you put into this course?

- 37. On average how many hours per week have you spent in this online course including course content (may include watching lectures, reading webpages, etc.), communication with instructor and peers, off line activities (may including writing papers or creating projects, etc.). (*Scale 2 – 22*)

- 38. Of the total hours you spent in this online course, how many were valuable in advancing your education? (*Scale almost all valuable to almost none valuable*)

4. UA Office of Instruction and Assessment Resources for Teaching

| | | |
|----------------------------------|--|--|
| Teaching Resources | http://teaching.oia.arizona.edu/ | An extensive set of articles and other resources related to teaching. |
| Student Focus Groups | http://oia.arizona.edu/project/student-focus-groups | Request a student focus group conducted in your class for important feedback to improve instruction. |
| Peer Review of Teaching Protocol | http://oia.arizona.edu/project/peer-review-teaching-protocol | A protocol to guide UA instructors in the process of formative review of peers' teaching. |
| Instructional Technologies | D2L: http://help.d2l.arizona.edu/ Collaborate: http://oia.arizona.edu/resource/collaborate Panopto: http://oia.arizona.edu/resource/panopto Clickers: http://oia.arizona.edu/resource/turning-technology-clickers Instructional Blogging: http://oia.arizona.edu/project/instructional-blogging Learning Apps: http://oia.arizona.edu/department/web-development-emerging-technologies | A variety of tools to enhance learning. |
| Certificate in College Teaching | http://oia.arizona.edu/project/certificate-college-teaching-program | A program that prepares post-baccalaureate students to practice learner-centered instruction in higher education. |
| Multimedia Instruction | http://oia.arizona.edu/project/multimedia-consultation | Multimedia enhancements for course delivery. |
| Instructional Support | http://oia.arizona.edu/department/instructional-support-development | Our consultants are skilled in instructional planning and learning theory. They can suggest theoretically supported strategies for your face-to-face, fully online, or hybrid courses. |

5. UA Library Resources for Teaching

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| Instructional Support | http://www.library.arizona.edu/services/faculty/instructional-services.html | Get in touch with a liaison librarian to improve students' research and information literacy skills. |
| Research Guides & Tutorials | <p>Course Guides: http://libguides.library.arizona.edu/ual</p> <p>Library Tools: LMS Library Resources widget</p> <p>Subject Guides http://www.library.arizona.edu/search/subjects/</p> <p>Tutorials: http://www.library.arizona.edu/applications/quickHelp/</p> | <p>Contact a liaison librarian to develop a customized course research guide or a list of resources for an LMS course site.</p> <p>Online tutorials to help students learn how to search specific databases and foundational library research skills.</p> |
| Video Streaming | http://new.library.arizona.edu/request/video-streaming | A video streaming service using Panopto with films purchased by the Library. |
| Course Materials | http://new.library.arizona.edu/request | Scanning of articles, book chapters, and other course readings to use in D2L course sites. |
| Open Educational Resources (OER) | http://www.library.arizona.edu/services/faculty/instructional-services.html | Support for identifying alternatives to textbooks and coursepacks |
| Course Software | http://www.library.arizona.edu/ic/infocommons-software.html | Software to support coursework available on Library computers. |
| Copyright Guidance | http://www.library.arizona.edu/help/tutorials/copyright/ | Copyright guidance on using educational materials |
| Film | http://www.library.arizona.edu/help/how/find/films/index.htm | Find films from Films |

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| Databases For Course Use | I# databases | On Demand and several performing arts databases. |
| Online Newspaper Collections | http://www.library.arizona.edu/search/articles/dbBySubject.php?subjectID=268 | Newspapers such as <i>Wall Street Journal</i> and <i>New York Times</i> available in full-text. |
| Primary Source Digital Collections | http://www.library.arizona.edu/search/digital-collections/alpha.html | Unique digitized collections from the UA Libraries including oral history recordings, papers, and maps. |
| Unique Collections from Special Collections | http://speccoll.library.arizona.edu/collections | Print and digitized collections featuring borderlands, history of science, and the performing arts. |