Do we e-*value*-ate how we teach here at UW – Eau Claire?
A Survey of Instructor's Perceptions of Effective Teaching Characteristics

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Abstract: The definition of effective teaching is fluid and dependent on the teaching environment and its community members (faculty, students and administrators). The purpose of this student/faculty collaboration was to determine what instructors on the UW – Eau Claire campus consider to be the most important characteristics of effective teaching. A committee of instructors from UWEC wrote a document describing the characteristics of effective teaching. A survey was created based on the document. 200 instructors ranked the importance of each of the 59 characteristics on a five-point Likert scale. The results were analyzed to answer two research questions. Instructors identified the learning/teaching environment and instructor knowledge as most important. Assessments should be evaluated for fairness and relevance. Use of new and research-based teaching methods and organizing the physical space are seen as less important. Instructors in their first six years and instructors in 7+ years agree on most characteristics although the more senior instructors attribute more importance to assessment issues. The results of the survey can be used as one source among others to create evaluation tools for the faculty to ultimately improve teaching techniques and approaches on campus.

Justification/Method: In the Fall of 2009, a group of faculty and academic staff, the Teaching Evaluation Initiative, representing all four colleges and many departments on campus created a document that defines effective teaching. The document was written starting with ideas gleaned from the literature (see citations below). The document is intended to be used as a reference for departments to use when they evaluate faculty and instructional academic staff. The document identifies 59 characteristics of teaching arranged into four major categories:

1.) Disciplinary Expertise
2.) Design and Development Skills
3.) Instructional Practices and Performances
4.) Learning/Teaching Environment

A survey was developed to find out what UW-Eau Claire faculty and instructional academic staff consider the most important characteristics of effective teaching. The survey consists of 59 items and participants were asked to rank the importance of each item on a five-point Likert scale (1 = Not important to 5 = Essential). Participants were asked not to respond to items that they didn't understand or considered not applicable. All 505 Faculty and Instructional Academic Staff were invited to participate in the survey and 200 responses were received.

Citations:
Arreola, Raoul A. "Developing a Comprehensive Faculty Evaluation System: A Guide to Designing, Building, and Operating Large-Scale Faculty Evaluation Systems" Anker Publishing Company. USA 2007.

Centra, John A. "Reflective Faculty Evaluation" Jossey-Bass Publishers. San Francisco, CA 1993.

Seldin, Peter "Changing Practices in Evaluating Teaching: A Practical Guide to Improved Faculty Performance and Promotion/Tenure Decisions" Anker Publishing Company. Boston, MA 1999

Research Question 1: What characteristics of effective teaching do UWEC Faculty and Instructional Academic Staff (IAS) consider to be most important?

Statistical Analysis of Survey Results:
The survey results were analyzed using SPSS by our collaborator, Dr. April Bleske-Recheck. A description of the analysis follows:

Overall inter-item reliability for the 59 items was high, Cronbach's alpha = 0.97.
An exploratory principal components analysis lays out 12 potential components with 36% of the variance explained by one component and several others explaining an additional 6%, 4%, 3% and 3% of the remaining variance.
Four factors explain 50% of the common variance (eigen values of 1.97 and above), but nearly all items load highest on the first factor. Two out of three of the items on the first theoretical cluster (expertise) load on the fourth component, but so does a different item not theoretically driven to be about expertise. In sum, exploratory analysis did not replicate the four clusters of items as theoretically derived for the questionnaire.
Recall overall internal reliability for all 59 items was very high. But one of the theoretically derived clusters, expertise, has just 3 items. An inter-item reliability analysis on these three items produces an alpha = 0.59, not acceptable.

The overall conclusion is that the items do not seem to cluster into several categories, likely because all of the mean values are quite high (>3.2 out of 5), with low variance. Instructors perceive all items on the questionnaire as relatively essential for effective instruction.

Qualitative Analysis of the Survey Results:
The 59 item responses were sorted by their mean values and the top ten and bottom ten responses were considered (see tables below).

Ave	Std dev		Item	Top Ten Responses (Sorted by Item Number)
4.80	0.51	186	1	The instructor knows the discipline's facts, concepts, theories, etc.
4.36	0.70	177	10	Assessments are fair and useful.
4.31	0.72	173	30	The instructor designs lessons and poses questions that support and elicit higher-order thinking
4.53	0.67	171	38	Strives to be fair in testing and grading
4.31	0.73	169	42	Writes relevant test questions
4.48	0.76	171	43	Respectful and Helpful
4.33	0.67	171	48	Holds high and realistic standards for student learning (rigorous)
4.50	0.74	171	49	Enthusiastic about teaching
4.37	0.71	171	51	Effective Communicator
4.33	0.68	169	54	Responds to student contributions

Ave	Std dev		Item	Bottom Ten Responses (Sorted by Item Number)
3.44	1.09	174	14	The instructor employs research-based and field-recognized instructional practices and strategies
3.75	0.87	173	18	Activating and building on student's prior knowledge
3.71	1.04	172	27	Uses up-to-date resources and media
3.67	1.02	174	33	Requests feedback on his/her teaching ability from students
3.56	0.98	171	35	Integrates new instructional practices into courses
3.75	0.84	169	37	Monitors learner's progress informally as well as formally
3.41	1.15	155	39	Employs the backward design approach to align instructional objectives with the assessment(s)
3.55	1.05	168	41	Covers material to be tested during class
3.74	1.00	168	56	Authoritative
3.24	1.00	168	57	Organizes the Physical Space (makes it conducive for learning)

Comment on the Entire Data Set
The averages for all 59 items > 3.2 . This indicates that educators consider all the items important.

Comments on the Top Ten Responses
At least one item from each of the four categories is included.
The L/T Environment has the most with five.
The most important item is "Knowing the discipline's facts, concepts and theories".
Assessments that are fair, relevant and elicit higher-order thinking are important.

Comments on the Bottom Ten Responses
Items are included from Design, Instructional Practice and L/T Environment categories.
The Instructional Practice category has the most responses with six.
The least important item is "Organizing the physical space".
Three items (14, 35, 39) relate to using new or intentional teaching .

Conclusions
The L/T environment should be evaluated, particularly whether the instructor is enthusiastic, respectful and an effective communicator.
The instructor should know their discipline and hold students to high standards.
Fairness and relevance in assessments should be evaluated.
Instructional practices, particularly employing new, research based or backward-designed approaches are seen as less important.
Organizing Physical Space is seen as very low in importance, probably due to do a lack of control of that issue by educators. This is an area of significant concern.

Research Question 2: Do faculty/ IAS in their first six years identify as important the same characteristics of effective teaching as their colleagues with seven or more years of experience?

0-6 yrs	Item	Top Ten Responses (Sorted by average)
4.64	1	The instructor knows the discipline's facts, concepts, theories, etc.
4.62	38	Strives to be fair in testing and grading
4.61	43	Respectful and Helpful
4.49	45	Provides Constructive Feedback (writes comments on returned work, answers students' questions, and gives advice on test-taking)
4.54	48	Holds high and realistic standards for student learning (rigorous)
4.73	49	Enthusiastic about teaching
4.57	51	Effective Communicator
4.49	52	Good Listener
4.54	53	Encourages and fosters student contributions (students volunteer information and participate in discussions)
4.51	54	Responds to student contributions

Highlighted items are found exclusively by the 0 – 6 year group.

7+ yrs	Item	
4.83	1	The instructor knows the discipline facts, concepts, theories, etc.
4.33	10	Assessments are fair and useful.
4.29	30	The instructor designs lessons and poses questions that support and elicit higher-order thinking
4.49	38	Strives to be fair in testing and grading
4.27	42	Writes relevant test questions
4.37	43	Respectful and Helpful
4.28	48	Holds high and realistic standards for student learning (rigorous)
4.44	49	Enthusiastic about teaching
4.31	51	Effective Communicator
4.31	54	Responds to student contributions

Highlighted items are found exclusively by the 7+ year group.

Comments on the Top Ten Responses
Seven out of the ten items are in common.
Eight out of the top ten responses from the 0-6 year group are from the learning teaching environment category.
Five out the top ten responses from the 7+ year group are from the learning teaching environment category.
The three items (10,30,42) identified by the 7+ year group and not by the 0-6 year group are related to assessment.

0-6 yrs	Item	Bottom Ten Responses (Sorted by average)
3.76	14	The instructor employs research-based and field-recognized instructional practices and strategies
3.84	18	Activating and building on students prior knowledge
3.87	23	Appropriate expectations for student workload
3.86	25	Incorporates timely, relevant topics into classes
3.92	27	Uses up-to-date resources and media
3.82	39	Employs the backward design approach to align instructional objectives with the assessment(s); assessment guides instruction.
3.69	41	Covers material to be tested during class
3.92	56	Authoritative
3.25	57	Organizes the Physical Space (makes it conducive for learning)
3.81	58	Manages class time well

Highlighted items are found exclusively by the 0 - 6 year group.

7+ yrs	Item	
3.35	14	The instructor employs research-based and field-recognized instructional practices and strategies
3.73	18	Activating and building on student's prior knowledge
3.65	27	Uses up-to-date resources and media
3.56	33	Requests feedback on his/her teaching ability from students
3.45	35	Integrates new instructional practices into courses
3.71	37	Monitors learner's progress informally as well as formally
3.31	39	Employs the backward design approach to align instructional objectives with the assessment(s)
3.52	41	Covers material to be tested during class
3.70	56	Authoritative
3.24	57	Organizes the Physical Space (makes it conducive for learning)

Highlighted items are found exclusively by the 7+ year group.

Comments on the Bottom Ten Responses
Seven out of the ten items are in common.
The items that are identified exclusively by each of the two groups don't show a clear pattern.

Conclusions
There is significant agreement between the two age groups.
The 7+ year group identifies assessment issues as more important than the 0-6 year group.