Teaching Practices Inventory (TPI)
Version 3

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Format: Multiple-response, Short answer
Duration: 10 minutes
Focus: Teaching (Course information provided, Supporting materials provided, In-class features and activities, Assignments, Feedback and testing, Training and guidance of TAs, Collaboration in teaching, Other)
Level: Upper-level, Intermediate, Intro college

How to give the assessment

- The Teaching Practices Inventory is a self-assessment. The instructor answers the questions based on the course they are currently teaching or just finished teaching.
- Complete the inventory for lecture sections of the course only.

How to score the assessment

- Download the scoring rubric from PhysPort (www.physport.org/key/TPI)
- Each question is assigned a certain number of points based on how "research-based" a practice has been determined to be.
- Download the Excel scoring rubric from PhysPort (www.physport.org/scoring/TPI)
- The scoring rubric extracts an "extent of use of research-based teaching practices (ETP)" score for each of the eight inventory categories and for the course as a whole. This rubric assigns points to each practice for which there is research showing that the practice improves learning.

CWSEI Teaching Practices Inventory
For use in natural and social sciences

To create the inventory we devised a list of the various types of teaching practices that are commonly mentioned in the literature. We recognize that these practices are not applicable to every course, and any particular course would likely use only a subset of these practices.

We have added places that you can make additions and comments and we welcome your feedback.

It should take only about 10 minutes to fill out this inventory.

Please fill out the inventory for the current or just completed Term, Lecture sections only.

Course number: _____
Section #(s) or Instructor name: _____
Total number of students in your class _____
or section (approximate):

_____

I. Course information provided to students via hard copy or course webpage. (check all that occurred in your course)

- ❑ List of topics to be covered
- ❑ List of topic-specific competencies (skills, expertise, ...) students should achieve (what students should be able to *do*)
- ❑ List of competencies that are not topic related (critical thinking, problem solving, ...)
- ❑ Affective goals – changing students' attitudes and beliefs (interest, motivation, relevance, beliefs about their competencies, how to master the material)
- ❑ Other (please specify)

If you selected other, please specify _____

II. Supporting materials provided to students (check all that occurred in your course)

- ❑ Student wikis or discussion boards with little or no contribution from you.
- ❑ Student wikis or discussion boards with significant contribution from you or TA.
- ❑ Solutions to homework assignments
- ❑ Worked examples (text, pencast, or other format)
- ❑ Practice or previous year's exams
- ❑ Animations, video clips, or simulations related to course material
- ❑ Lecture notes or course PowerPoint presentations (partial/skeletal or complete)
- ❑ Other instructor selected notes or supporting materials, pencasts, etc.
- ❑ Articles from related academic literature
- ❑ Examples of exemplary papers or projects
- ❑ Grading rubrics for papers or large projects
- ❑ Other (please specify)

If you selected other, please specify _____

III. In-class features and activities

A. Various

Give approximate average number:

Average number of times per class: pause to ask for questions
_____

Average number of times per class: have small group discussions or problem solving
_____

Average number of times per class: show demonstrations, simulations, or video clips
_____

Average number of times per class: show demonstrations, simulations, or video where students first record predictions (write down, etc.) and then afterwards explicitly compare observations with predictions
_____

Average number of discussions per term on why material useful and/or interesting from students' perspective
_____

Comments on above (if any): _____ _____

Check all that occurred in your course:
- ❑ Students asked to read/view material on upcoming class session
- ❑ Students read/view material on upcoming class session and complete assignments or quizzes on it shortly before class or at beginning of class
- ❑ Reflective activity at end of class, e.g. "one-minute paper" or similar (students briefly answering questions, reflecting on lecture and/or their learning, etc.)
- ❑ Student presentations (verbal or poster)

Fraction of typical class period you spend lecturing/talking to whole class (presenting content, deriving mathematical results, presenting a problem solution, ...)

- ❍ 0-20%
- ❍ 20-40%
- ❍ 40-60%
- ❍ 60-80%
- ❍ 80-100%

Considering the time spent on the major topics, approximately what fraction was spent on the *process* by which the theory/model/concept was developed, including the experimental methods and results that support specific theories?

- ❍ 0-10%
- ❍ 11-25%
- ❍ more than 25%

B. Individual Student Responses (ISR)

If a student response method is used to collect responses from all students IN REAL TIME IN CLASS, what method is used? (check all that occurred in your course)
- ❑ raising hands
- ❑ raising colored cards
- ❑ electronic (e.g. "clickers") with student identifier
- ❑ electronic anonymous
- ❑ written student responses that are collected and reviewed in real time
- ❑ Other (please specify)

If you selected other, please specify _____

Number of ISR questions posed followed by student-student discussion per class _____

Number of times ISR used as quiz (counts for marks and no student discussion) per class _____

IV. Assignments (check all that occurred in your course)

- ❑ Homework/problem sets assigned or suggested but did not contribute to course grade
- ❑ Homework/problem sets assigned and contributed to course grade at intervals of 2 weeks or less
- ❑ Paper or project (an assignment taking longer than two weeks and involving some degree of student control in choice of topic or design)
- ❑ Encouragement and facilitation for students to work collaboratively on their assignments
- ❑ Explicit group assignments
- ❑ Other (please specify)

If you selected other, please specify _____

V. Feedback and testing; including grading policies (check all that occurred in your course)

A. Feedback from students to instructor during the term
- ❑ Midterm course evaluation
- ❑ Repeated online or paper feedback or via some other collection means such as clickers
- ❑ Other (please specify)

If you selected other, please specify _____

B. Feedback to students (check all that occurred in your course)

- ❑ Assignments with feedback from instructor, teaching assistant, or peer before grading or with opportunity to redo work to improve grade
- ❑ Students see graded assignments
- ❑ Students see assignment answer key and/or grading rubric
- ❑ Students see graded midterm exam(s)/quizzes
- ❑ Students see midterm exam(s)/quizzes answer key(s)
- ❑ Students explicitly encouraged to meet individually with you
- ❑ Other (please specify)

If you selected other, please specify _____

C. Testing and grading

Number of tests during term that reflect   _____
course expectations (e.g. midterm exams,
but not final exams)

Approximate fraction of test scores from   _____%
questions that required students to explain
reasoning

Approximate breakdown of course grade (% in each of the following categories)

Final exam   _____%
Midterm/other exam(s)   _____%
Homework assignments   _____%
Paper(s) or project(s)   _____%
In-class activities   _____%
In-class quizzes   _____%
Online quizzes   _____%
Participation   _____%
Lab component   _____%
Other   _____%
If you selected other, please specify: _____

VI. Other (check all that occurred in your course)

- ❑ Assessment given at beginning of course to assess background knowledge
- ❑ Use of instructor-independent pre-post test (e.g. concept inventory) to measure learning
- ❑ Use of a consistent measure of learning that is repeated in multiple offerings of the course to compare learning
- ❑ Use of pre-post survey of student interest and/or perceptions about the subject
- ❑ Opportunities for students' self-evaluation of learning
- ❑ Students provided with opportunities to have some control over their learning, such as choice of topics for course, paper, or project, choice of assessment methods, etc.
- ❑ New teaching methods or materials were tried along with measurements to determine their impact on student learning

VII. Training and guidance of Teaching Assistants (check all that occurred in your course)

- ❑ No TAs for course
- ❑ TAs must satisfy English language skills criteria
- ❑ TAs receive ½ day or more of training in teaching
- ❑ There are Instructor-TA meetings every two weeks or more frequently where student learning and difficulties, and the teaching of upcoming material are discussed.
- ❑ TAs are undergraduates
- ❑ TAs are graduate students
- ❑ Other (please specify)

If you selected other, please specify _____

VIII. Collaboration or sharing in teaching

❑ Used or adapted materials provided by colleague(s)
❑ Used "Departmental" course materials that all instructors of this course are expected to use

Discussed how to teach the course with colleague(s)

○ 1 Never
○ 2
○ 3
○ 4
○ 5 Very Frequently

Read literature about teaching and learning relevant to this course

○ 1 Never
○ 2
○ 3
○ 4
○ 5 Very Frequently

Sat in on colleague's class (any class) to get/share ideas for teaching

○ 1 Never
○ 2
○ 3
○ 4
○ 5 Very Frequently

IX. General (open-ended comments)

Please write any other comments here. If this inventory has not captured an important aspect of your teaching of this course, or you feel you need to explain any of your above answers please describe it here.

_____
_____
_____

Approximately how long did it take you to fill out this inventory?   _____

We thank you for taking the time to fill out this inventory.