

Building a Better Ruler: Authentic Assessment

2017 New Faculty Orientation
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STETSON UNIVERSITY
BROWN
CENTER
FOR FACULTY INNOVATION
AND EXCELLENCE

Set your intention:

- I am excited about ...

- I promise to ...

Course Design for Transformative Learning

2017-2018 Workshop Series

**Dilemma, Issue or Question
(DIQ)**

What is the “big idea”?

**Sept 8,
2:30-4pm**



Essential Learning Goals

What do you want
your students
to know and do?

**Oct 6,
2:30-4pm**



**Nov 10,
2:30-4pm**

**High-impact
Practices**

What will your
students do?

**Dec 8,
2:30-4pm**

**Authentic
Assessment**

How will you know
if your students are
successful?



*Location TBD
Look for
announcement on
faculty-l*

Reflect

What worked?
What can be improved?

**Jan 19,
2:30-4pm**

Design with the end in mind

Dilemma, Issue or Question (DIQ)

What is the “big idea”?



Essential Learning Goals

What do you want your students to know and do?



High Impact Practices

What assignments/activities will your students do?



Authentic Assessment

How will you know if your students are successful?

Reflect

What worked? What can be improved?

Adapted from Understanding by Design by Wiggins & McTighe

G: What is the real-world goal in the scenario?

R: What is the student's role?

A: Who is the audience?

S: What is your situation or audience?

P: What product will the student generate?

S: What are the standards for evaluation?

NOTES:

Do your current exams...

- reliably measure student learning?
- develop professional competencies or skills?
- evaluate content and critical thinking?
- communicate to students how this course ties to future goals?
- require students to apply concepts/ideas in new contexts?
- make you look forward to grading?

THINK: Take two minutes to think about the question.

PAIR: With your neighbor discuss how you might achieve these goals in your course.

SHARE: Share with the entire group one notable idea that came up in your discussion.

The Time-travelling Scientist ...

Imagine you are a chemist in the year 2000 working in a stratospheric ozone depletion research group., You travel back in time to 1987 prior to adoption of the Montreal Protocol with the scientific evidence you have available to you. Your task is to prepare a convincing presentation that will convince politicians and the general public the importance of adopting the protocol.

You've been asked by your research director to prepare a poster presentation that addresses the following criteria:

1. Provide context for the issue – that will convince scientists and non-scientists unfamiliar with the controversy and the data.
 2. Use a minimum of four sets of the data we discussed.
 3. Explain the chemical basis for the issue, which includes chemical structures and reactions.
 4. Provide a timeline for ozone depletion and recovery.
 5. Use additional, scientifically valid resources to make your case.
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G: What is the real-world goal in the scenario?

- defend position on the Montreal Protocol with data

R: What is the student's role?

- ozone scientist

A: Who is the audience?

- world leaders & public

S: What is the situation or context?

- 1987 Montreal Protocol discussions

P: What product will the student produce?

- prepare a convincing argument supported by a poster.

S: What are the standards for success?

- provide context appropriate for non-scientists
- support argument with data and scientifically valid sources
- provide scientifically accurate explanations
- prepare a plausible timeline for ozone depletion and recovery

Example 1: Ethology

Unit: Canine Communication and Behavior

Objectives:

- Students will analyze the body language and vocalizations of dogs
- Students will create an action plan to address common problem behaviors in dogs

You are a professor of ethology and on the side you help people who have problem dogs. Currently you have two individuals you are assisting. They have each sent you a videotape of their dog displaying the problem behavior. Your task is to write a letter to each dog owner including the following...

1. Explain the dog's vocalizations and body language to the owner. What is the dog trying to communicate? (Your letter needs to address vocalizations, eyes, ears, mouth, body, and tail.)
2. Make suggestions to the owner concerning the best way to react to their pet when the dog is sending these messages. (Your work will be judged at how close your suggestions come to those a professional canine ethologist would make.)

The best letters will be sent to the dog owners.

Example 2: Research

Unit: Multivariable Experimental Design

Objective: Students will develop an experimental design for isolating key variables

You are a scientist with Consumer Reports magazine. Your task is to design an experiment to determine which of four brands of detergent will most effectively remove three different types of stain on cotton fabric. You have a two part challenge: 1) to develop an experimental design for isolating the key variables and 2) to clearly communicate the procedure so that the staff of the testing department can conduct the experiment to determine which cleaner is most effective for each type of stain. You need to develop a written experimental procedure outlining the steps in sequence. You may include an outline or graphic format to accompany the written description. Your design needs to follow the criteria for quality design accurately and completely; appropriately isolate the key variables; include a clear plan for the testing department staff to determine which cleaner is most effective for each type of stain.

Example 3: The United States in the 1900's

Unit: How historians approach conflicting historical accounts

Objective: Students will weigh evidence in order to draw reasonable conclusions from conflicting historical accounts

You are an historian writing a book on the American Indian experience during the Civil War. Part of the particular chapter you are working on concerns an event during the Civil War that some refer to as a massacre of the Cheyenne people but that others insist was not, in fact, a massacre. In order to write this chapter, you will read Senate transcripts and various conflicting first-hand accounts leading to your own narrative which will present various points of view. Then you will a) explain the evidence for and against the "massacre" designation, b) explain how the evidence might be weighed, and then c) draw some conclusions as to whether the preponderance of evidence does or does not suggest a massacre. Your work will be reviewed by your peers and judged by professors acting as the book editors.

Example 4: World Geography

A patient (who is a visitor from abroad) has entered the emergency room complaining of a high fever, body aches, a rash, and bleeding from the gums. She doesn't speak English but has indicated that she would like to speak to a Catholic priest.

1. What questions do you need to ask?
 2. What country do you think this person is from?
 3. How does understanding geography help you help this person?
 4. What questions do you need to ask to ensure public safety?
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Example 5: Racial Stratification

Local high school students submitted the following questions. Choose one and write a 5-7 page essay accessible to the high school audience that demonstrates a deep command of the course material.

1. What is race; is it just skin color? If yes, how can skin color be the determining factor of why one race is better than another? What is racism; (how) is it different from discrimination or prejudice? Can only white people be racist? Is reverse racism a thing?
 2. How has racism over time actually affected the history of this country? How has it actually affected different races' position in society/politics/media, etc.? Why is so much discussion of racism focused on the history of African Americans or the black/white divide?
 3. Why are Native Americans the only targeted groups for mascots? Why hasn't this changed? Why do people seem to know so little about the history of Native Americans?
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Example 6: Advocacy

Craft a letter to a local school administrator advocating for teacher development around one of the following concepts:

1. Teachers should have faculty development on how to incorporate more exercise/movement into their classrooms
2. Teachers should have faculty development on using better questioning techniques, especially all answer, TPS, and random call
3. Teachers should have faculty development on using CPS (collaborative and proactive solutions)
4. Teachers should have a book group based on the book Choice Words so that they can learn about how the specific language they use in the classroom can make a big difference in student learning.
5. Teachers should have a book group based on the book Multiplication is for White People so that they can learn more about how to be culturally responsive.
6. Teachers should have a book group based on the book Drive so that they can learn more about human motivation, what works to develop intrinsic motivation and what doesn't work.

Generate ideas

Use these stem prompts to brainstorm ideas for your authentic assessment task. (No need to complete them all)



Goal:

- Your task is _____
- The goal is to _____
- The problem/challenge is _____
- The obstacle(s) to overcome is (are) _____

Role:

- You are _____
- You have been asked to _____
- Your job is _____

Audience:

- Your client(s) is (are) _____
- The target audience is _____
- You need to convince _____

Situation:

- The context you find yourself in is _____
- The challenge involves dealing with _____
- Product/Performance and Purpose:
 - You will create a _____ in order to _____
 - You need to develop _____ so that _____

Standards & Criteria for Success:

- Your performance needs to _____
- Your work will be judged by _____
- Your product must meet the following standards _____

Design your own

Create a performance task around a real or imaginary scenario that ...

1. requires the student use what they've learned in class.
2. uncovers thought processes.
3. relies on higher-order learning (apply, analyze, evaluate, create)
4. aligns with at least 2 criteria in critical thinking VALUE rubric



Goal:

Role:

Audience:

Situation:

Standards & Criteria for Success:

Building Rubrics

CATEGORY		Exceeds Expectations (4 points)	Meets ALL expectations (2-3 points)	Meets SOME expectations (1-2 points)	Does not meet expectations (0-1 point)
Research and Presentation Criteria					
Quality of Information		Exhibit communicates high quality information which is accurate and concise. Exhibit clearly showcases the significance of the scientific phenomenon. Exhibit supported by sufficient and appropriate source material.	Exhibit addresses all assignment criteria but some components do not communicate high quality information (accurate but not concise). Exhibit significance is implied (not explicit). Exhibit supported by sufficient and appropriate source material.	Exhibit addresses some assignment criteria OR many of the components do not communicate high quality information (not accurate) OR the components are concise OR the exhibit does not showcase the significance of the phenomenon. Source material is not appropriate or does not support the exhibit.	Does not address assignment criteria. Information is not accurate OR Information has little or nothing to do with the main topic. Source materials are of poor quality or not included.
Content Focus/ Interpretation		Work presents a logical, rational, and cohesive focus on the content, demonstrated through smaller themes. Opportunities for visitor to draw correct conclusions is high.	Work presents a logical focus on the content of the topic and thematic patterns are demonstrated throughout the exhibit. Opportunities for visitor to draw correct conclusions is good.	Content focus of exhibit is not based in logic OR content focus of exhibit is not strong (non-cohesive and unfocused OR too much information). Opportunities for visitor to draw correct conclusions is low; visitors ask for clarifications.	No content focus is exhibited (exhibit is not directly related to the content focus). No opportunities for visitors to draw correct conclusions.
Demonstrated Knowledge		Presenters have sufficient knowledge of material to communicate chemical information to chemists and general audiences.	Presenters have passable knowledge of material and/or communication with audience is adequate.	Presenters have passable knowledge of material but have difficulty communicating beyond a rudimentary level.	Presenters cannot communicate with audience at a rudimentary level.

Descriptions of the criteria for evaluation
What is the desired outcome?

Descriptions of the different levels of achievement. What would an accomplished/developing performance look like?

Guiding Questions

1. Do the criteria in your rubric align to the outcomes in your course/unit goals?
2. Will students be able to demonstrate gains in the criteria by completing the planned task?
3. Is mastery possible?
4. Will the rubric evaluation give you the information you want?

Assignment:

Criteria	Best Performance	Minimum Requirements
support argument with data and scientifically valid sources	Conclusions and interpretations are appropriately drawn from the skillful use of high-quality, credible, scientifically valid sources and at least four (4) data sets.	Uses a minimum of four (4) data sets presented in the course readings in support of argument.