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Pointing a Telescope Toward the Night Sky: Transparency and Intentionality as Teaching Techniques

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Transparency and Intentionality as Teaching Techniques

POINTING A TELESCOPE TOWARD THE NIGHT SKY

Beth Fuchs
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LOEX 2018
Participants will:

define transparent teaching in order to be able to identify transparent teaching practices when they encounter them.

use a template to compare transparently-designed assignments and non-transparently-designed assignments in order to examine how existing teaching activities can be transformed to incorporate aspects of transparent teaching.

collaboratively brainstorm ways to incorporate transparent teaching into their own pedagogical practices in order to consider a variety of different approaches for potential use.
Today’s Goals

- Context
- Shared Understanding
- Implications and Application
Today’s Goals

Context

Shared Understanding

Implications and Application
Reflection and Conversation

What types of professional knowledge do you draw on when designing a typical instruction session?
Reflection and Conversation

How often do you communicate the “why” behind your instructional decisions with your students?
What We Tend to See
What Our Students Tend to See
Helping Them to See More
Transparency in Learning and Teaching In Higher Education (TILT Higher Ed)

https://www.unlv.edu/provost/teachingandlearning
Liberal Education

Transparency in Teaching: Faculty Share Data and Improve Students' Learning

By: Mary-Ann Winkelman

Faculty rarely have opportunities to research their students' views about how their best learning happens in college or graduate school. Even less common are the means for teachers to gather such information from colleagues on a large scale and distill it into pragmatic insights about teaching practices best suited to their own particular students. The Illinois Initiative on Transparency in Learning and Teaching is a grassroots assessment project doing just that, and it demonstrably enhances students' learning. The project has two main goals: (1) to promote students' conscious understanding of how they learn; and (2) to enable faculty to gather, share, and promptly benefit from data about students' learning by coordinating their efforts across disciplines, institutions, and countries.

Statistically significant early results indicate distinct current and future learning benefits of particular teaching and learning methods that are specific to discipline, class size, level of experience, and other factors.
Some Statistically Significant Teaching Methods

Discuss assignments’ learning goals and design rationale before students begin each assignment.

Explicitly connect “how people learn” data with course activities when students struggle at difficult transition points.

Gauge students’ understanding during class via peer work on questions that require students to apply concepts you’ve taught.


Additional methods: https://www.unlv.edu/provost/transparency
Peer Review

A Teaching Intervention that Increases Underserved College Students’ Success

By: Mary-Ann Winkelman, Matthew Bernacki, Jeffrey Butler, Michelle Zochowski, Jennifer Golanics and Kathryn Harris Weavil

The challenge to provide equitable opportunities for college students to succeed is a critical priority for the Association of American Colleges and Universities (AAC&U). In 2014, AAC&U partnered with the Transparency in Learning and Teaching in Higher Education (TiLT Higher Ed) project, funded at the University of Illinois and now housed at the University of Nevada, Las Vegas, on an initiative that significantly increases underserved college students’ success. TG Philanthropy funded the Transparency and Problem-Centered Learning project (www.aacu.org/problemcenteredlearning), with Tia McNair, Ashley Finley, and Mary-Ann Winkelman as the coinvestigators.

In its first year, the endeavor has identified a simple, replicable teaching intervention that demonstrably enhances students’ success, especially that of first-generation, low-income, and underrepresented college students in multiple ways at a large scale and in a replicable manner. The main goals: (1) improve students’ learning and retention, and (2) support faculty in developing a deeper understanding of teaching and learning.
Results: Students noticed . . .

- **Connecting** information from a variety of sources
- **Learning** on your own
- **Applying** knowledge and skills to different contexts
- **Writing** effectively
- **Judging** the reliability of information from various sources
- **Considering** opinions or points of view different from your own
Results: Faculty noticed . . .

- Students’ motivation in class
- Higher-level class discussions with sharper focus
- On-time completion of assignments
- Fewer disputes about grades
A Closer Look
Exercise 3: Scientific Evidence

Read through your example scientific poster and answer the following questions.

Title of your example poster:

1. What is the ethical question that is being asked?

2. What pieces of evidence do they provide in support of and in opposition of their question?
   - In Opposition: __________
   - In Support: __________

3. Are the pieces of evidence from peer-reviewed scientific sources (look at the references to be sure)?

4. How are the pieces of evidence presented (numbers, graphs, tables, figures)?

5. How are the pieces of evidence analyzed in the Discussion section?

6. What is the ethical conclusion?

7. Do the pieces of evidence support their conclusion? Why or why not?

8. Are you convinced by their evidence of their ethical conclusion? Why or why not?

9. What questions do you still have after reading this poster? What could they have done better?
Exercise 3: Scientific Evidence

Purpose: The purpose of this assignment is to analyze an existing scientific poster. This will increase your familiarity with how scientific posters are constructed, and will help you later in the course when you research, design, and create your own effective poster with sufficient scientific evidence that supports your conclusion. As a result of completing this assignment, you will be able to identify the sources of scientific information, interpret the results, and critically analyze the scientific merit of the conclusion of an existing scientific poster.

Task: Read through your example scientific poster and answer the following questions.

Title of your example poster:

1. Identify the ethical question that is being asked.
2. List the evidence the authors provide in support of and in opposition to their question.
3. Examine the pieces of evidence listed in #2 above. Identify whether they are from popular (Pop), scientific peer-reviewed (SPR), or non-scientific peer-reviewed (NSPR) sources, and note each statement above as (Pop), (SPR), or (NSPR). Do you think there is enough scientific evidence from peer-reviewed articles? Why or why not?
4. Describe how the pieces of evidence are presented (e.g., numbers, graphs, tables, figures).
5. Explain how the pieces of evidence are analyzed in the Discussion section.
6. Identify the ethical conclusion.
7. After analyzing the content of the poster, do the pieces of evidence support their conclusion? Explain why or why not.
8. After assessing the scientific merit of their evidence, are you convinced of their ethical conclusion? Explain why or why not.
9. List the questions you still have after reading this poster. What could they have done better?

Criteria: The grade on this assignment will reflect how completely you answer the questions.
How will you recognize it?
Today’s Goals

- Context
- Shared Understanding
- Implications and Application
Implications for . . . Relevancy and Motivation

“When we remind students why they are learning something (not just what they are learning), we appeal to a different part of their thinking. We tap into their motivation to learn.”

Implications for . . . Teachers, Knowledge, and Expectations

“It has been said that change is inevitable, but growth is intentional. If this is true, then intentionality is crucial to becoming a great teacher.”

Implications for . . . Assessment

“What is most important is that teaching is visible to the student, and that the learning is visible to the teacher.”

Application: Transparent Teaching in Action
Let students know why you are part of their class

Articulate the learning outcome early; repeat

Show assessment questions at the beginning

Let students know how professional reading informed the development of an activity/worksheet/lesson plan, etc.
Further Reading


Credits

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Thank you!