Transparent Assignments Enhance Students' Success

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Keynote Session:

Data from a 2014-2015 AAC&U study of students' learning at seven Minority-Serving Institutions indicates that transparency in assignments boosts students' success (and especially underserved students' success) significantly in three important areas: academic confidence, sense of belonging, and mastery of the skills employers value most when hiring (Winkelmes et al., Peer Review, Spring 2016). In this session, we'll review the findings about how transparent assignment design promotes students' success equitably. Participants will examine several examples of what transparency looks like when applied to course assignments. Breakout sessions will explore specific ways to implement transparency in your contexts to improve students' success.

Breakout Sessions:

1. **Teachers, students, instructional designers**: Creating Transparent Assignments to promote equitable opportunities for all students to succeed (Melissa Bowles-Terry)
   - How can we explicate the purposes, tasks and criteria for assignments in ways that are equally accessible to all students? (Whole group activity; pairs activity)
   - Instructors leave with a draft assignment that is transparently designed.
   - Designers leave with insights for helping instructors design transparent assignments.

2. **Unit / Department leaders & Administrators**: Using a Transparency Framework to enhance collaboration within / between units and at the institution/consortium level
   - Identify a commonly shared challenge to collaboration or implementation in your context (in groups)
   - Use the Transparency Framework to map out a strategy that may help
   - Report back: Whole group identifies best ideas. Facilitators share ideas from their campus.

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- Contribute to our ongoing research
- Sign up to survey your students, receive a confidential report
- Discuss: Transparent 2nd Tuesdays at 2:00 pm
Recent Findings: Transparency in Learning and Teaching in Higher Education

A 2015 study (Winkelmes, et al., (Peer Review, Winter 2016) identified transparent teaching about problem-centered learning as an easily replicable teaching method that produces learning benefits already linked with students’ success. This simple, replicable teaching intervention demonstrably enhanced the success of first-generation, low-income and underrepresented college students in multiple ways at statistically significant levels, with a medium-to-large sized magnitude of effect. The results offer implications for how faculty and educational developers can help their institutions to right the inequities in college students’ educational experiences across the country by contributing to efforts to increase underserved students’ success, especially in their first year of college (when the greatest numbers drop out).

In 2014-2015 a group of 7 Minority Serving Institutions launched a pilot project that included 1180 students and 35 faculty. Tia McNair and Ashley Finley at the Association of American Colleges & Universities (AAC&U) led the project in partnership with Mary-Ann Winkelmes at the University of Nevada, Las Vegas’ Transparency in Learning and Teaching in Higher Education Project (TILT Higher Ed), with funding from TG Philanthropy. The main research goal was to study how faculty transparency about the design and problem-centered nature of student assignments would affect students’ learning experiences and the quality of students’ work. Faculty received training on how to make two take-home assignments in a course more transparent (accessible) and problem-centered (relevant) for students, and each instructor taught a control group and an intervention group of the same course in the same term. Results were measured via online surveys about students’ learning experiences before and after each course, and direct assessment of students’ work. Students who received more transparency reported gains in three areas that are important predictors of students’ success: academic confidence, sense of belonging, and mastery of the skills that employers value most when hiring. While the benefits for all students in the aggregate who received more transparency were statistically significant, the benefits for first-generation, low-income and underrepresented students were greater, with a medium-to-large sized magnitude of effect. Important studies have already connected academic confidence and sense of belonging with students’ greater persistence and higher grades (Walton and Cohen 2011, Aronson et al 2002, Paunesku et al 2015), and recent national surveys identify the skills that employers value most when hiring new employees (Hart 2015 and 2013).

Subsequent tracking of UNLV students’ retention rates indicated that increases to academic confidence, sense of belonging and perceived mastery of employer-valued skills were indeed followed by greater persistence as seen in retention rates. UNLV intro-level students who received more transparency around their academic assignments had significantly higher average retention/re-enrollment rate than the average freshman-to-sophomore retention rate for UNLV’s first-time, full-time freshmen, while retention gains for underserved students were often greater (Gianoutsos and Winkelmes 2016).

TILT Higher Ed and the AAC&U continue to promote transparency and problem-centered learning. TILT Higher Ed participants include more than 25,000 students in hundreds of courses at 40 higher education institutions in the U.S. and five other countries.

End of Term Skills, Confidence, and Belonging - Less vs. More Transparent Courses - First-Generation College Students

Publications and information about the Transparency in Learning and Teaching Project are at: www.unlv.edu/provost/teachingandlearning

http://www.unlv.edu/provost/teachingandlearning

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Transparent Assignment Template for Students

The Unwritten Rules: Decode Your Assignments and Decipher What's Expected of You

The Transparency in Learning and Teaching in Higher Education Project at UNLV demonstrated in a national study that transparency around academic assignments enhances students' success -- especially that of first-generation, low-income and underrepresented college students -- at statistically significant levels (with a medium-to-large sized magnitude of effect for underserved students). Students who understand the purpose, tasks and criteria of an academic assignment before they begin to work on it (in comparison with students who don't share that understanding) experience higher academic confidence, an increased sense of belonging, and greater awareness that they are mastering the skills that employers value, as well as higher rates of returning to college the following year. (Winkelmes et al., Peer Review 2016; Gianoutsos and Winkelmes, PADE Proceedings 2016).

Background
Researchers have demonstrated that increases in college students' academic confidence and sense of belonging are linked with higher GPAs, persistence and retention rates, especially for underserved students (Walton and Cohen 2011). In addition, struggling college students increased their test scores after endorsing the belief that intelligence is not fixed but rather malleable. A year later, these students were 80% less likely to drop out of college (Aronson et al 2002).

WHAT STUDENTS CAN DO:

Before you begin working on an assignment or class activity, ask the instructor to help you understand the following. (Bring this document to help frame the conversation.)

Purpose
- Skills you'll practice by doing this assignment
- Content knowledge you'll gain from doing this assignment
- How you can use these in your life beyond the context of this course, in and beyond college

Task
- What to do
- How to do it (Are there recommended steps? What roadblocks/mistakes should you avoid?)

Criteria
- Checklist (Are you on the right track? How to know you're doing what’s expected?)
- Annotated examples of successful work (What's good about these examples? Use the checklist to identify the successful parts.)


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Transparent Assignment Template

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This template can be used as a guide for developing, explaining, and discussing class activities and out-of-class assignments. Making these aspects of each course activity or assignment explicitly clear to students has demonstrably enhanced students’ learning in a national study.¹

Assignment Name
Due date:

Purpose: Define the learning objectives, in language and terms that help students recognize how this assignment will benefit their learning. Ideally, indicate how these are connected with institutional learning outcomes, and how the specific knowledge and skills involved in this assignment will be important in students’ lives beyond the contexts of this assignment, this course, and this college.

Skills: The purpose of this assignment is to help you practice the following skills that are essential to your success in this course / in school / in this field / in professional life beyond school:

Terms from Bloom’s Taxonomy of Educational Objectives may help you explain these skills in language students will understand. Listed from cognitively simple to most complex, these skills are:

- understanding basic disciplinary knowledge and methods/tools
- applying basic disciplinary knowledge/tools to problem-solving in a similar but unfamiliar context
- analyzing
- synthesizing
- judging/evaluating and selecting best solutions
- creating/inventing a new interpretation, product, theory

Knowledge: This assignment will also help you to become familiar with the following important content knowledge in this discipline:

1.
2.

Task: Define what activities the student should do/perform. “Question cues” from this chart might be helpful:

http://www.asainstitute.org/conference2013/handouts/20-Bloom-Question-Cues-Chart.pdf. List any steps or guidelines, or a recommended sequence for the students’ efforts. Specify any extraneous mistakes to be avoided.

Criteria for Success:

Define the characteristics of the finished product. Provide multiple, annotated examples of what these characteristics look like in practice, to encourage students’ creativity and reduce their incentive to copy any one example too closely. With students, collaboratively analyze examples of work before the students begin working. Explain how excellent work differs from adequate work. It is often useful to provide or compile with students a checklist of characteristics of successful work. This enables students to evaluate the quality of their own efforts while they are working, and to judge the success of their completed work. Students can also use the checklist to provide feedback on peers’ coursework. Indicate whether this task/product will be graded and/or how it factors into the student’s overall grade for the course. Later, asking students to reflect and comment on their completed, graded work allows them to focus on changes to their learning strategies that might improve their future work.

Bibliography:


Elbow, Peter. “High Stakes and Low Stakes in Assigning and Responding to Writing.” *New Directions for Teaching and Learning*, no. 69, (Spring 1997).


Tanner, Kimberly B. "Promoting Student Metacognition." *CBE Life Sciences Education* 11, 2 (June 4, 2012): 113-120.


Examples: LESS Transparent Assignments

7. Submit the typed transcript and reflection paper to your instructor.
   a. What questions you still have?
   b. What you learned from them that is most interesting?
   c. What this assignment helped you learn about your
      major/career decision?
   d. What questions you selected and why?

6. Write a 400-500 word reflection paper in which you address the
   following items:
   a. What did you learn from the professional for a date and time
   that is convenient for both of you.
   b. Prepare a typed transcript of the questions and answers using
      the audio/video recording.
   c. Conduct a 20-30 minute, face-to-face interview to gather
      knowledge of a particular academic discipline/career field.
   d. Prepare 8-10 questions to ask the professional about their
      knowledge that will help you make an informed decision about
      what you are interested.

For the given function
\[ f(x) = x^3 - 3x^2 \]

Find and simplify the first derivative
Identify any critical points
Find and simplify the second derivative
Identify any inflection points

Make a rough sketch of the shape of the graph, and label the critical points and inflection points
Criteria for success:

1. Understand the context. Explain how evidence supports the conclusion of your poster. What could they have done differently?

2. Understand the context. Explain why or why not. After assessing the conclusions made in the literature, are you comfortable with their conclusions? Before analyzing the content of the poster, do you have any concerns about it? Explain how the pieces of evidence are utilized in the Discussion section.

3. Be able to defend your position. What will be the most compelling evidence to support your position? Explain how the pieces of evidence are presented (e.g., number, graphs).

4. Be able to defend your position. What will be the most compelling evidence to support your position? Explain how the pieces of evidence are presented (e.g., number, graphs).

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8. Be able to defend your position. What will be the most compelling evidence to support your position? Explain how the pieces of evidence are presented (e.g., number, graphs).

9. Be able to defend your position. What will be the most compelling evidence to support your position? Explain how the pieces of evidence are presented (e.g., number, graphs).

10. Be able to defend your position. What will be the most compelling evidence to support your position? Explain how the pieces of evidence are presented (e.g., number, graphs).

Sample D - MORE Transparent Assignments

Examples:

1. Students are required to develop a research question and conduct a literature review on their assigned topic. They must present their findings in a poster format and write a report summarizing their research.

2. Students are required to engage in a series of workshops focused on different aspects of scientific communication. These workshops include presentations, discussions, and hands-on activities designed to enhance their skills in delivering effective presentations and communicating complex ideas.

3. Students are required to select a journal article related to their field of study and prepare a detailed analysis of the research methodology, results, and conclusions. They must also present their analysis in a class discussion.

4. Students are required to participate in a peer review process where they evaluate the quality of research proposals prepared by their classmates. This activity is designed to foster critical thinking and analytical skills.

5. Students are required to design an experiment or intervention study and write a detailed protocol outlining the procedures to be followed. They must also present their study design in a class presentation.

6. Students are required to develop a research project focused on a current scientific question or problem. They must write a comprehensive proposal that outlines the objectives, methods, and expected outcomes of their project.

7. Students are required to engage in a group project where they work collaboratively to design and conduct an experiment. They must write a report documenting their findings and the conclusions drawn from their analysis.

8. Students are required to present their research findings in a peer-reviewed conference setting. They must prepare a high-quality presentation and engage in constructing arguments and answering questions from the audience.

9. Students are required to engage in a series of workshops focused on different aspects of scientific communication. These workshops include presentations, discussions, and hands-on activities designed to enhance their skills in delivering effective presentations and communicating complex ideas.

10. Students are required to select a journal article related to their field of study and prepare a detailed analysis of the research methodology, results, and conclusions. They must also present their analysis in a class discussion.

Sample C - THE Scholarly Poster

Sample A - THE Scholarly Poster