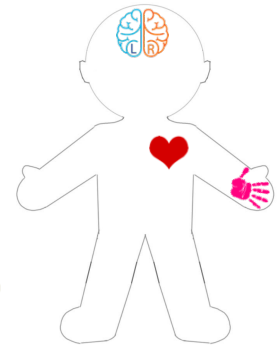


Part III: High-impact Pedagogies

Learning Goals

1. explore evidence base for high-impact practices and teaching strategies.
2. design transparent activities and/or assignments.



How's it going?

I had success with...

I am struggling with ...

Innovative Course Design for 21st Century Transformative Learning

2017-2018 Workshop Series

Dilemma, Issue or Question (DIQ)
What is the “big idea”?

**Sept 22,
2:30-4pm**



Essential Learning Goals
What do you want
your students
to know and do?

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

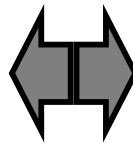


**Nov 10,
2:30-4pm**

**High-impact
Practices**
What will your
students do?

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

**Authentic
Assessment**
How will you know
if your students are
successful?



Reflect

What worked?
What can be improved?

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

Guiding Initiatives & Research

LIBERAL EDUCATION AND AMERICA'S PROMISE (LEAP) – AAC&U

<https://www.aacu.org/leap>

"The key concept at the center of the LEAP Challenge is that all college students need to prepare to contribute in a world marked by open or unscripted problems—problems where the right answer is far from known and where solutions are necessarily created under conditions of uncertainty." (Schneider, 2015). Projects include

- [High-Impact Educational Practices](#)—ways of engaging and challenging students—such as first year programs; intensive writing, collaborative assignments, undergraduate research, internships, and major projects that help students achieve essential learning outcomes

VISIBLE LEARNING (HATTIE, 2009)

<https://visible-learning.org/>

"Visible Learning means an enhanced role for teachers as they become evaluators of their own teaching. According to John Hattie Visible Learning and Teaching occurs when teachers see learning through the eyes of students and help them become their own teachers. In his meta-analysis of over 800 meta-analyses, Hattie identifies the interventions with the highest rate of return for student success.

TRANSPARENCY IN LEARNING AND TEACHING IN HIGHER EDUCATION

<https://www.unlv.edu/provost/transparency>

The Transparency in Learning and Teaching in Higher Education project (TILT Higher Ed) is a national educational development and research project that helps faculty implement a transparent teaching framework that promotes college students' success. Transparent teaching methods help students understand how and why they are learning course content in particular ways. Housed at UNLV, the project invites participants from all institutions of higher education in the US and abroad. Any instructor may join the project by signing up online.

High-Impact Educational Practices



First-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research.

Common Intellectual Experiences

The older idea of a "core" curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with "big questions" that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link "liberal arts" and "professional courses"; others feature service learning.

Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice "across the curriculum" has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Diversity/Global Learning

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore "difficult differences" such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

Service Learning, Community-Based Learning

In these programs, field-based "experiential learning" with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both *apply* what they are learning in real-world settings and *reflect* in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

Capstone Courses and Projects

Whether they're called "senior capstones" or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of "best work," or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.



Kuh, G. D. (2009). *High-Impact Educational Practices: What they are, who has access to them, and why they matter*. Washington, D.C.

Evidence for High-Impact Practices

Table 1

Relationships between Selected High-Impact Activities, Deep Learning, and Self-Reported Gains

	Deep Learning	Gains General	Gains Personal	Gains Practical
<i>First-Year</i>				
Learning Communities	+++	++	++	++
Service Learning	+++	++	+++	++
<i>Senior</i>				
Study Abroad	++	+	++	
Student-Faculty Research	+++	++	++	++
Service Learning	++	+++	+++	++
Senior Culminating Experience	++	++	+++	++

+ p < .001, ++ p < .001 & Unstd B > .10, +++ p < .001 & Unstd B > .30

Table 2

Relationships between Selected High-Impact Activities and Clusters of Effective Educational Practices

	Level of Academic Challenge	Active and Collaborative Learning	Student-Faculty Interaction	Supportive Campus Environment
<i>First-Year</i>				
Learning Communities	++	+++	+++	++
Service Learning	++	+++	+++	++
<i>Senior</i>				
Study Abroad	++	++	++	+
Student-Faculty Research	+++	+++	+++	++
Service Learning	++	+++	+++	++
Senior Culminating Experience	++	++	+++	++

+ p < .001, ++ p < .001 & Unstd B > .10, +++ p < .001 & Unstd B > .30

Kuh, G. D. (2009). *High-Impact Educational Practices: What they are, who has access to them, and why they matter*. Washington, D.C.

The Essential Learning Outcomes



Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

★ Knowledge of Human Cultures and the Physical and Natural World

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

***Focused** by engagement with big questions, both contemporary and enduring*

★ Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

***Practiced extensively**, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance*

★ Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

***Anchored** through active involvement with diverse communities and real-world challenges*

★ Integrative Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

***Demonstrated** through the application of knowledge, skills, and responsibilities to new settings and complex problems*

Note: This listing was developed through a multiyear dialogue with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in previous publications of the Association of American Colleges and Universities: *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), *Taking Responsibility for the Quality of the Baccalaureate Degree* (2004), and *Liberal Education Outcomes: A Preliminary Report on Achievement in College* (2005). *Liberal Education Outcomes* is available online at www.aacu.org/leap.



HIPs Puzzle

Which of the following Essential Learning Outcome (ELO) categories is each HIP aligned with? You can list some HIPs in more than one category.

ELO category	HIPs, that when well-implemented in a course, could help students achieve this outcome:
Fostering Broad Knowledge of Human Cultures and the Natural World	
Strengthening Intellectual and Practical Skills	
Deepening Personal and Social Responsibility	
Practicing Integrative and Applied Learning	

Which one or two of these HIPs would be most aligned with your course student-learning outcomes? Why?

The HIP(s) I would like to investigate further is _____.

What practices have highest ROI?

Divide the provided interventions and student characteristics into 3 categories of 8 each...

Strong influence on learning

Medium influence on learning

Weak influence on learning

VISIBLE LEARNING (HATTIE, 2009)

<https://visible-learning.org/>

15 years of research and the synthesis of over 800 meta-analyses on the influences on achievement in school-aged students pre-K through college.

Notes

VISIBLE LEARNING (HATTIE, 2009)

<https://visible-learning.org/>

15 years of research and the synthesis of over 800 meta-analyses on the influences on achievement in school-aged students pre-K through college.

- **PRO:** meta-analyses can address big questions that can't be addressed any other way.
- **CON:** circumstances get erased, and there is no doubt that the intricacies of particular issues get lost.

Strong influence on learning

- Formative assessment
- Feedback
- Quality student-teacher relationships
- Teaching metacognitive strategies
- Teaching study skills
- Concept mapping
- Higher socio-economic status
- Teaching self-verbalization/self-questioning skills

Medium influence on learning

- Preschool programs
- Positive teacher expectations of student success
- Smaller school size
- Positive student self-concept
- Matching teaching to the students' style of learning
- Computer assisted instruction
- Quality of school leaders
- Positive view of one's own ethnicity

Minimal influence on learning

- Reducing class size from 30 to 15
- Mentoring
- Being male
- Eating a good quality diet
- Being retained a year (actually negative)
- Web-based/online learning
- Which residence hall a student lives in
- Family structure

Transparent Teaching

What is Transparency?

Transparent teaching and learning methods explicitly focus on *how* and *why* students are learning course content in particular ways.

Transparency in Learning and Teaching (TILT) Project

Mary-Ann Winkelmes, University of Nevada – Las Vegas

- national research project
- faculty implement transparent teaching
- promotes college students' success
- greater benefits for underserved and first-generation
- join project at <https://www.unlv.edu/provost/teachingandlearning>

How transparent are your assignments?

- Pair with someone outside your discipline.
- The less they know about what you teach the better.

Person A:

Describe assignment to your partner(s).

Person B:

Listen as if you are a novice student. Provide feedback using these prompts:

Purpose

Five years after taking the course ...

- What essential **knowledge** should students retain from doing this assignment?
- What **skills** should students be able to perform from doing this assignment?
- Why are these important to students?

Task

As a novice, list the steps you'd take to do the assignment

Criteria

As a novice ...

- Are you confident you are doing the task effectively?
- Are you confident you are doing excellent work?
- Do you have annotated good examples?

SWITCH & REPEAT

Transparent Assignment Design

Assignment:

Due Date:

Purpose:

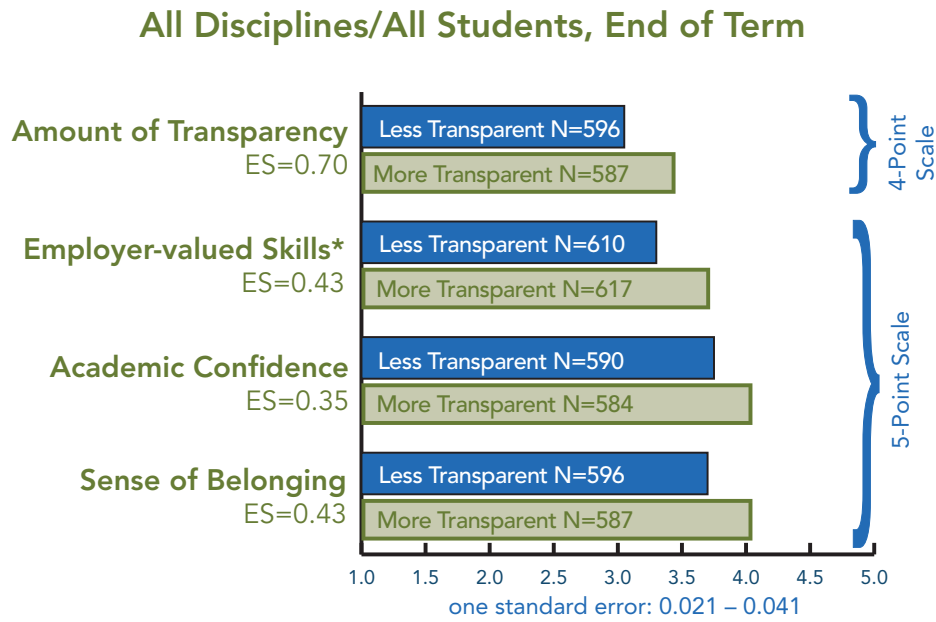
Skills

Knowledge

Task:

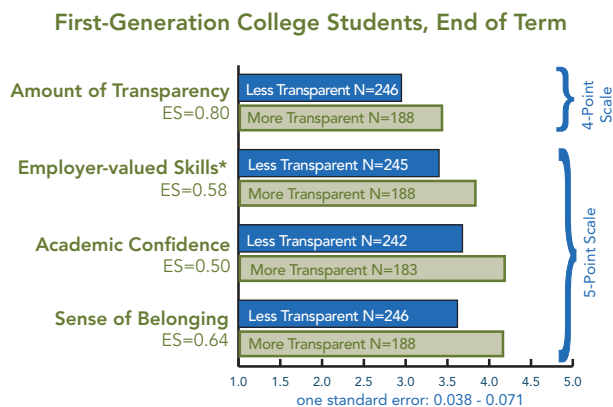
Criteria for Success:

FIGURE 2. ALL DISCIPLINES/ALL STUDENTS IN LESS TRANSPARENT VERSUS MORE TRANSPARENT COURSES—END OF TERM



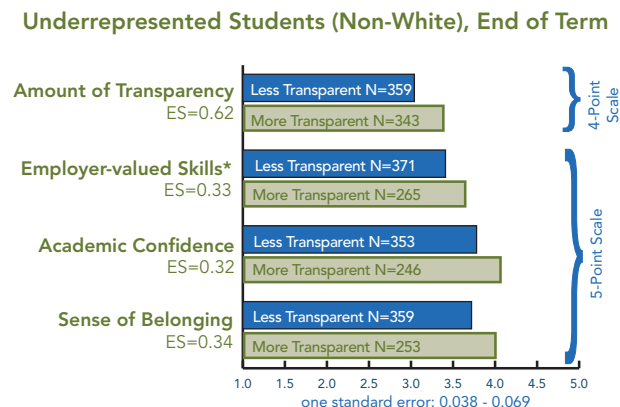
KEY: N: number of students responding
 ES: effect size (Hedges' G). Effect sizes of 0.25 standard deviations or larger are "substantively important" (US Dept of Education WWC, 2014, p. 23).
 Less Transparent: mean perceived transparency <3.3/4
 More Transparent: mean perceived transparency ≥3.3/4
 *Hart Associates 2015, 2013

FIGURE 3. FIRST-GENERATION COLLEGE STUDENTS IN LESS TRANSPARENT VERSUS MORE TRANSPARENT COURSES—END OF TERM



KEY: N: number of students responding
 ES: effect size (Hedges' G). Effect sizes of 0.25 standard deviations or larger are "substantively important" (US Dept of Education WWC, 2014, p. 23).
 Less Transparent: mean perceived transparency <3.3/4
 More Transparent: mean perceived transparency ≥3.3/4
 *Hart Associates 2015, 2013

FIGURE 6. UNDERREPRESENTED STUDENTS (NON-WHITE), IN LESS VERSUS MORE TRANSPARENT COURSES—END OF TERM



KEY: N: number of students responding
 ES: effect size (Hedges' G). Effect sizes of 0.25 standard deviations or larger are "substantively important" (US Dept of Education WWC, 2014, p. 23).
 Less Transparent: mean perceived transparency <3.3/4
 More Transparent: mean perceived transparency ≥3.3/4
 *Hart Associates 2015, 2013

Winkelmes, M.-A., et al. (2016). A Teaching Intervention that Increases Underserved College Students' Success. *Peer Review*, 18(1/2), 31–36.

<https://www.aacu.org/peerreview/2016/winter-spring/Winkelmes>

DRAFT CHECKLIST FOR DESIGNING A TRANSPARENT ASSIGNMENT

PURPOSE:

Skills

- Does your purpose statement specify content knowledge that students will gain from doing this assignment?
- Does your purpose statement link that particular knowledge to the larger context of:
 - recent topics of class sessions?
 - this part of the course?
 - the whole course?
 - the major?
 - the discipline?
 - your institution's main learning outcomes?
- Does your purpose statement indicate the relevance and/or usefulness of this knowledge to the students' lives:
 - beyond the course? beyond the major? beyond college?

Knowledge

- Does your purpose statement specify a skill or skill set that students will practice while doing the assignment?
- Does your purpose statement link that particular skill/skill set to examples/contexts where this skill was important in the context of:
 - recent class sessions?
 - this part of the course?
 - the whole course?
 - the major?
 - the discipline?
 - your institution's main learning outcomes?
- Does your statement indicate the relevance and/or usefulness of this knowledge to the students' lives:
 - beyond the course? beyond the major? beyond college
- Would this assignment benefit from segmenting it into several assignments, each one focused on a discrete set of skills that should be mastered to insure students' successful completion of the next assignment in the sequence?

TASK:

- Does your description of the task:
 - Identify the very first thing students should do when they begin working on the assignment?
 - The very next thing they should do?
 - The next, etc.
- Does your description of the task help students to avoid wasting their time on unnecessary steps, unproductive time expenditure?
- Does your description help students to focus their time efficiently on producing the highest quality work possible in the time given?
- Would students benefit from some practice exercises (in the form of a pre-task) in class to prepare them to perform the task outside of class on the graded assignment?

CRITERIA:

- Can students use the criteria while they are working on the assignment to determine whether they are completing the assignment efficiently and effectively?
- Do the criteria take the form of a checklist students can use to evaluate the quality of their efforts while they are working on the assignment?
- Does the checklist specify characteristics of high quality work for this assignment?
- Can you help students apply the checklist to evaluating some sample work in class, so they understand how each criterion would look in practice?
- With your guidance, can the students collaboratively annotate several examples of work to indicate where/how the work satisfies the criteria? (These annotated examples may then be shared as a reference for students to use while they work on their own assignments.)
- Would a rubric ([AAC&U VALUE examples](#)) be helpful to students for this assignment?
- Does the rubric provide an amount of information that helps students at this phase in their learning?
- Does the rubric provide an overwhelming or counterproductive amount of information for students at this phase in their learning?
- Did you provide examples of good work, annotated to identify exactly where and how this work satisfies your criteria?
- Can you provide students with examples in class so they and you can test out your criteria checklist or rubric to be sure students know how to apply the criteria to multiple examples of work, and eventually their own work?

3. Transparent Assignment Templates for Students and Faculty

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

Breaking News

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.)

Aronson, J., Fried, C., & Good, C. "Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence." *Journal of Experimental Social Psychology* 38 (2002): 113–125.

Gianoutsos, Daniel and Mary-Ann Winkelmes. "Navigating with Transparency." *Proceedings of the Pennsylvania Association of Developmental Educators* (Spring, 2016).

Walton, G. M., & Cohen, G. L. "A brief social-belonging intervention improves academic and health outcomes among minority students." *Science* 331 (2011): 1447–51.

Winkelmes, Mary-Ann, Matthew Bernacki, Jeffrey Butler, Michelle Zochowski, Jennifer Golanics, Kati Harriss Weavil. "A Teaching Intervention that Increases Underserved College Students' Success." *Peer Review* (Winter/Spring 2016).

WHAT FACULTY CAN DO:

Transparent Assignment Template

© 2013 Mary-Ann Winkelmes

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.

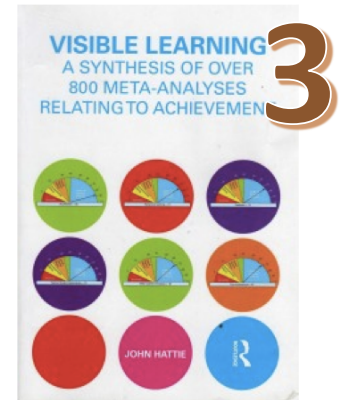
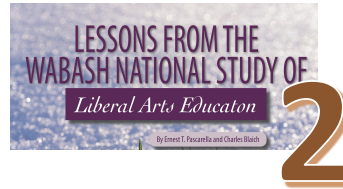
Task: Define what activities the student should do/perform. "Question cues" from this chart might be helpful: <http://www.asainstitute.org/conference2013/handouts/20-Bloom-Question-Cues-Chart.pdf>. List any steps or guidelines, or a recommended sequence for the students' efforts. Specify any extraneous 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.

¹ Winkelmes, Mary-Ann. "Transparency in Teaching: Faculty Share Data and Improve Students' Learning." *Liberal Education* 99,2 (Spring 2013); Winkelmes et al, "A Teaching Intervention that Increases Underserved College Students' Success." *Peer Review* (Winter/Spring 2016).

Homework: Focused Reading



Questions to guide your reading:

1. Briefly summarize the work
2. What was the main takeaway?
3. What methods were used to collect this evidence?
4. How confident are you in the results?
5. What does this research tell you about student learning?
6. How might you apply this information to your teaching?

Notes