

Understanding by Design Wiggins & McTighe

A Brief Introduction

Center for Technology & School Change

Teachers College, Columbia University

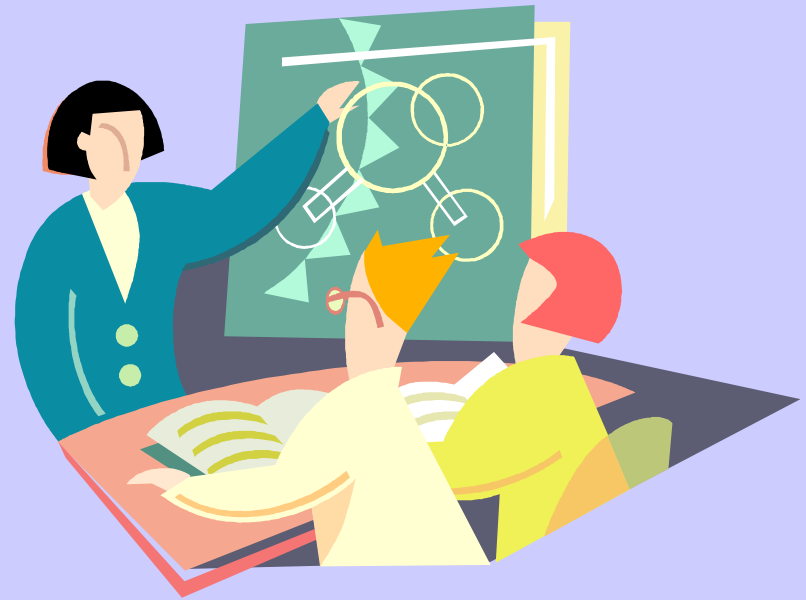
Ellen B. Meier, Ed. D., Co-Director

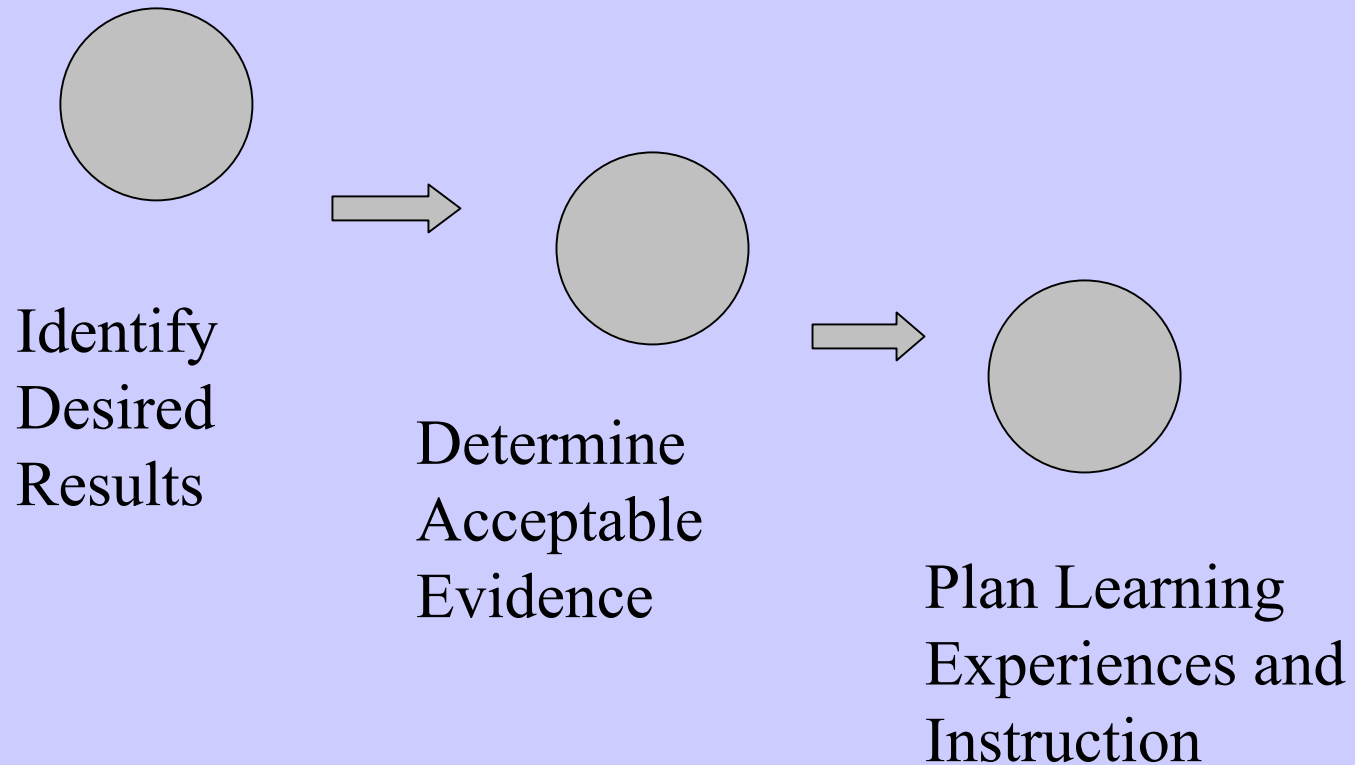
Focus on “Understanding”

- Explains common practices that interfere with understanding.
- Explains a *backward design* process to avoid common problems.
- Proposes an approach to curriculum designed to engage students in inquiry & “uncovering” ideas.
- Proposes a set of design standards for achieving quality control in curriculum & assessment designs.

Focus on Instruction or the Approach

- Grant Wiggins and Jay McTighe provide a way to move from “covering the curriculum” to “creating curriculum” and understanding with technology.





Stages of Backward Design

© 1998 Grant Wiggins and Jay McTighe

Establishing Curricular Priorities

Worth being familiar with

Important to know and do

Enduring
Understanding

© 1998 Grant Wiggins and Jay McTighe

Filters for Selecting Understandings

- Represent a big idea having enduring value beyond the classroom.
- Reside at the heart of the discipline (involve “doing” the subject).
- Require un-coverage (of abstract or often misunderstood ideas).
- Offer potential for engaging students.

Practically speaking, this means...

- Turning content standards and outcome statements into question form.
- Designing assignments and assessment that evoke possible answers.



Some examples of Essential Questions

- Is there enough to go around (e.g., food, clothes, water)?
- Are mathematical ideas inventions or discoveries?
- Does art reflect culture or shape it?
- Who owns what and why?
- What do we fear?

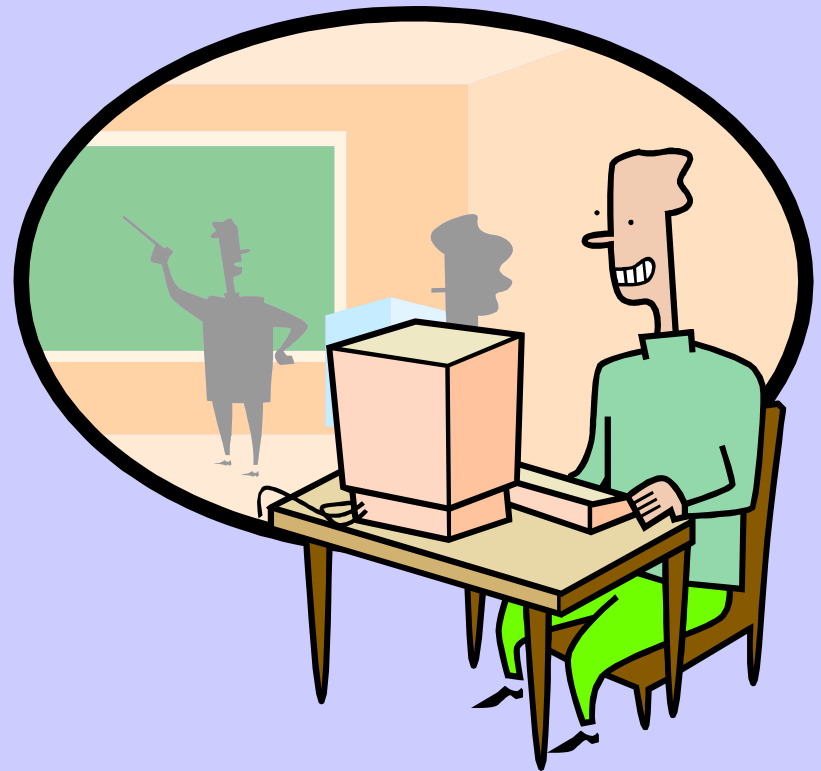


Big Picture of a Design Approach

Key Design Question	Design Considerations	Filters (Design Criteria)	What the Final Design Accomplishes
Stage 1: What is worthy & requiring of understanding?	National standards State standards Teacher expertise & interest	Enduring ideas. Opportunities for authentic, discipline-based work. Uncoverage. Engaging.	Unit framed around enduring understandings and essential questions.
Stage 2: What is evidence of understanding?	Six facets of understanding. Continuum of assessment types.	Valid. Reliable. Sufficient. Authentic work. Feasible. Student friendly.	Unit anchored in credible and educationally vital evidence of the desired understandings.
Stage 3: What learning experiences & teaching promote understanding, interest, and excellence?	Research based repertoire of learning & teaching strategies. Essential & enabling knowledge & skill.	WHERE Where is it going? Hook the students. Explore & equip. Rethink & revise. Exhibit & evaluate.	Coherent learning experiences & teaching that will evoke & develop the desired understandings, promote interest & make excellent performance more likely.

Six Facets of Understanding

- Can explain
- Can interpret
- Can apply
- Has perspective
- Can empathize
- Has self-knowledge



Rubric for the Six Facets of Understanding



- Criteria for each facet:
 - Explanation – accurate
 - Interpretation – meaningful
 - Application – effective
 - Perspective – credible
 - Empathy – sensitive
 - Self-knowledge - self-aware

What the Facets Imply for Unit Design

- Uncoverage vs. coverage:
 - Text is resource vs. text is syllabus.
 - Main ideas suggest the kinds of performances vs. assessment is viewed as a test based on text.



Two Different Approaches

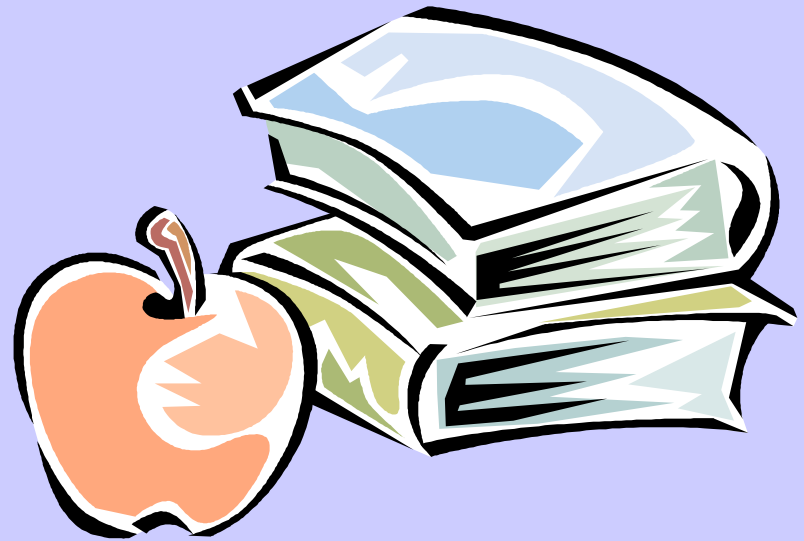
Thinking like an Assessor	Thinking like an Activity Designer
What would be sufficient & revealing evidence of understanding?	What would be interesting & engaging activities on this topic?
What performance tasks must anchor the unit and focus the instructional work?	What resources and materials are available on this topic?
How will I be able to distinguish between those who really understand and those who don't (though they may seem to)?	What will students be doing in and out of class? What assignments will be given?
Against what criteria will I distinguish work?	How will I give students a grade (and justify it to their parents)
What misunderstandings are likely? How will I check for those?	Did the activities work? Why or why not?

Implications for Teaching

Acquisition of Organized Knowledge	Development of Intellectual Skills	Enlarged Understanding of Ideas and Values
Didactic Instruction	Coaching, Exercises, and Supervised Practice	Socratic Questioning and Active Participation

Design Standards are Important

- Helps us understand:
 - What is worthy of understanding in this unit?
 - What counts as evidence that students really understand and can use what we're teaching?
 - What knowledge and skills must we teach to enable them to apply their knowledge in meaningful ways?



Ideally...



- Units would be reviewed with others in a peer review process.
- Units would be documented with all the information including handouts required and exemplars.
- Units would be made available to share.

A Process, not an Event

- Takes place over time
– 3 to 5 years
minimum.
- Can adapt any or all of
these perspectives and
incorporate others.
- Emphasis on student
understanding is key.

