

## Backward Design

## Class Notes

**So what does all this mean? Backward Design? And why is it important?**

As a teacher you are asked to address several topics (*the curriculum*) — which are usually based on local school system *curriculum guides* which are usually developed to address the **Content Standards and Outcomes** for particular grade levels. Using the TfU framework and Wiggins and McTighe’s reading, let’s walk through the process.

Based on Harvard’s Teaching for Understanding framework (TfU)

<http://learnweb.harvard.edu/ALPS/tfu/index.cfm> we will adding to the example Wiggins and McTighe use (end of chapter 1), *Application of Backward Design*, <http://www.ascd.org/readingroom/books/wiggins98book.html>:

The scenario is:

**Setting:** You are a 5<sup>th</sup> grade teacher, Bob James, developing a “nutrition unit”. This is a three-week unit on nutrition. (Don’t worry about grade level—since we are all teaching in different subject areas I am choosing something we are all familiar with at the basic level).

Instead of just diving in and randomly grabbing material, worksheets and websites we need to follow the TfU framework. To illustrate an example we will follow the “text book” example presented in the *Understanding by Design*, or the *Backward Design Model* which asked the instructor/teacher to think through the process-related to “**what do I really want the participants to know at the end of this experience?**” “**What deeper understanding do I want them to take away?**” As with many things in the educational arena, this idea” is not new, just recycled. Earlier educational initiatives, including problem-based learning (Stepien & Gallagher, 1997), Socratic seminar, 4-MAT (McCarthy, 1981), *Dimensions of Learning* (Marzano & Pickering, 1997), *The Skillful Teacher* (Saphier & Gower, 1997), and the recently published book (Wiske, 1997) and workbook (Blythe & Associates, 1998) from the Project Zero team at the Harvard Graduate School of Education all focus on the concept of **teaching for deeper understanding**.

**How do we get there?****Stage 1. Identify Desired Results: What is worthy and requiring of understanding?****From Figure 1.6. The Big Picture of a Design Approach**

Found in the reading example in chapter 1 of Wiggins ...we have to consider standards.

In reviewing the state standards in health, Bob James found three content standards on nutrition that are benchmarked to this 5<sup>th</sup> age level:

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- Students will understand essential concepts about nutrition.
- Students will understand elements of a balanced diet.
- Students will understand their own eating patterns and ways in which these patterns may be improved.

For us (in Maryland) this unit would probably be developed earlier but if it were taught in the 5<sup>th</sup> grade, the content standards that would/may apply would be (from MSDE standards):

3.5.9 cite evidence to support the importance of food, water, and air in the structure and function of living things.		
	3.5.10 explain that organisms can cause <b>physical and chemical changes to matter</b> (e.g., digestion, growth, excretion).	

**Using these standards as the starting point**, we need to decide what enduring understandings we want our students/participants to take away from the unit or training opportunity. In the “nutrition/Bob scenario”, Bob decided that the item he really wanted students to understand (remember ten years from now) was:

*Students will use an understanding of the elements of good nutrition to plan a balanced diet for themselves and others.*

Given that you now will address the standards in mind and that you know what you want your students to remember “ten years from now”, we are ready to begin Stage 2.

### Stage 2:

#### What is evidence of understanding?

Should this be quizzes? Tests? While these may be necessary, will they assess students’ knowledge at a deeper level? Will they address the item you decided was to be the overall goal? → *Students will use an understanding of the elements of good nutrition to plan a balanced diet for themselves and others.* What are other assessments that provide for deeper understanding? Research shows that when participants truly understand a concept, they can:

- **Explain**
- **Interpret**
- **Apply**
- **Have Perspective**
- **Can empathize**
- **And have self-knowledge**

These are often referred to as the **Six Facets of Understanding**.

- **Can Explain:** provide thorough, supported, and justifiable accounts of phenomena, facts, and data.
  - Why is that so? What explains such events? How can we prove it? To what is this connected? How does this work? What is implied?
- **Can Interpret:** Tell meaningful stories; offer apt translations; provide a revealing historical or personal dimension to ideas and events; make it personal or accessible through images, anecdotes, analogies, and models.
  - What does it mean? Why does it matter? What of it? What does it illustrate or illuminate in human experience? How does it relate to me? What makes sense?
- **Can Apply:** effectively use and adapt what we know in diverse contexts.
  - How or where can we use this knowledge, skill, or process? How should my thinking and action be modified to meet the demands of this particular situation?
- **Have Perspective:** see and hear points of view through critical eyes and ears; see the big picture.
  - From whose point of view? From which vantage point? What is assumed or tacit that needs to be made explicit and considered? What is justified or warranted? Is there adequate evidence? Is it reasonable? What are the strengths and weaknesses of the idea? Is it plausible? What are its limits? So what?
- **Can empathize:** find value in what others might find odd, alien, or implausible; perceive sensitively on the basis of proper direct experience.
  - How does it seem to you? What do they see that I do not? What do I need to experience if I am to understand? What was the artist or performer feeling, seeing, and trying to make me feel and see?
- **Have self-knowledge:** perceive the personal style, prejudices, projections, and habits of mind that both shape and impede our own understanding; we are aware of what we do not understand and why understanding is so hard.
  - How does who I am shape my views? What are the limits of my understanding? What are my blind spots? What am I prone to misunderstand because of prejudice, habit, or style?

Research also indicates that **ongoing formative (Quizzes/Tests) and informal assessment (teacher monitoring/questioning)** is vital if students are to achieve understanding and avoid misunderstanding. Any thorough and revealing assessment of understanding should also be grounded in an **authentic performance** AND needs to be both **feasible and student friendly**.

Having clarified the kinds of evidence needed to access for understanding, we turn again to the second phase –but this time lets think like an assessor, asking, *Against what criteria will we judge such evidence? What are the kinds of things to look for?* These questions challenge us to clarify the criteria for judging performance. We ask, *Given the right kinds of evidence, what is the difference between successful and*

*unsuccessful explanations, interpretations, and applications?*. This brings us to the next topic **RUBRICS**.