Understanding by Design

Developed by Grant Wiggins and Jay McTighe, Understanding by Design (UbD) is a framework for creating curriculum. The philosophy behind UbD addresses two issues we, as teachers, normally encounter in our planning of curriculum: the mundane coverage of content and the use of activities that are disconnected from the intellectual goals of a lesson. When considering UbD we need to reflect on what normally characterizes any discussion on curriculum: There are typically disagreements about textbooks, especially with newer editions, because teachers feel comfortable teaching particular material in a particular way. Chapter-by-chapter coverage leads to some cumulative assessment for students in the form of a midterm or final exam and often leads to content cramming during the final weeks of the marking period. When several teachers teach the same course, students often have very different expectations placed upon them and thus experience very different outcomes. Assessments are constructed near the end of a lesson or unit rather than at the start. Finally, there is an association between the amount of content covered and the degree of understanding the students demonstrate. All of these examples highlight the struggles many teachers endure because they assume they are doing the right thing by preparing their classes for collegiate expectations or the demands of the real world. The central principles behind UbD create a paradigm shift by attempting to begin where the teachers are in their own understanding of curriculum.

One way to initiate any discussion on curriculum is to assess what teachers have done with some measure of success. Oftentimes the dialogue on any curriculum design and review process is stifled by the inability to know where exactly the conversation should begin. Teachers should take consolation in knowing that it can come from a question as easy as, “What should all freshmen know after taking religion class?” The conversation could also come from a discussion about teachers’ favored lesson plans or resource texts. In other words, the issue is not so much what teachers discuss when analyzing their curriculum but more why they feel it is important for all students to know or demonstrate content in the case of different assessments. It is the rationale behind using a particular textbook or lesson plan or topic that is rarely discussed when it comes to the curriculum design and review process. This is where UbD can prove quite useful. Because one of the major misconceptions about the UbD process is the belief that it is not concerned with content, it may be reassuring to some to consider the following steps when developing a preliminary framework.

First, outline what is essential to know. What does every student need to know in order to successfully move onto the next level of curriculum in school? Teachers should focus on the skills and content necessary for transitioning into the next level of curricular expectations. This first step represents your core curriculum.

The next step is to determine what is important to know. Whereas *essential* (or enduring) understanding is usually framed by a guiding question and goes beyond standards or benchmarks, information that is *important* to know consists of more specific facts and measures of content.

The last step is determining what is nice to know. Ironically, this is where many teachers begin in their planning. For example, a teacher may think, “I really enjoy teaching this unit on the war of 1812,” not taking that thought further and asking what question it’s answering or how it connects with prior and impending skill and content mastery. This is not to say that teachers should be prevented from teaching material they have a particular interest or expertise in but rather that in the construction of a shared curriculum, this should come toward the end of the conversation instead of the beginning.

Some scholars suggest that teachers should allot 10 to 15 percent of the academic calendar for creating new lesson plans, which may empower them to explore these “nice to know” topics and thus foster a certain level of academic freedom. This idea is worth being familiar with but may not be necessary to successfully meeting the outlined objectives. The insight in all of this discussion is remembering the

students we teach and that to be truly student-centered is to place their needs and best interests at the center of our dialogue.

Essential Questions

The use of essential questions follows from this discussion of what is essential, important, and nice to know. Essential questions are engaging and thought-provoking. They do not have yes or no answers, and they are not designed to be answered with general facts or statistics. They can be thought of as debate prompts: Do heroes always do the right thing? Is human nature the result of nature or nurture? What makes a work of literature a classic? The purpose of essential questions is to engage the knowledge students know and to frame class units. They direct the class to consider the central truths in a given curriculum. They bridge real-world knowledge with the material needed to be successful on a cumulative examination or to actively contribute to a class debate.

Wiggins and McTighe suggest thinking of knowledge and skill as the means of addressing questions central to knowing key topics in your subject rather than seeing content as stuff to be covered. These types of creative questions are seen in popular culture and the media outlets, addressing issues ranging from human rights to the application of mathematical principles to the living interpretation of history. Essential questions embody a classic education of lifelong learners who continually ponder new insights on age-old topics. They require us to reconsider learning as *how* to learn, not necessarily *what* to learn.

Another use of these questions is that they refer to core ideas in a discipline as they engage a diverse set of learners, recognizing that many of our students learn differently. This calls for some self-reflection given that we often teach the way *we* learn best and not how our students need to learn. What is intriguing about using these kinds of questions in a curriculum discussion is that they still allow for teachers to explore different readings as long as they help the students to answer the essential questions. Essential questions create a level of accountability for teachers and students alike. By way of a summary, essential questions should cause genuine inquiry into the big ideas of a subject, promote lively discussion and create new questions. They should force students to consider alternative answers and justify their responses, inspire the assumptions behind prior learning, foster connections between personal experience and content knowledge, and naturally recur so as to create opportunities to bridge understanding across disciplines.

Big Ideas

After essential questions are established, you want to map out the understandings that follow from them: What are the big ideas? What are the specific understandings about them? What misunderstandings are predictable? These will help to guide what students should understand as the result of this unit or lesson plan. So the next step is to outline what knowledge and skills students will acquire and what they should eventually be able to do as a result. So if they know about important Church councils, perhaps it would follow that you would want them to be able to compare and contrast the key doctrines and teachings that followed from them. You would then move on to a discussion of what evidence is necessary to prove that the students have demonstrated the desired understandings and what criteria will you establish to ensure this has been done. You may conclude that a personal journal reflection is a more appropriate method of seeing a student's grasp of a given topic in a particular lesson. Or you may want to have the students reflect on how they understand the material.

These are what we would normally call assessments or the ways we continually evaluate academic performance. We should consider how we use standard assessments, such as homework assignments, to put the practice of UbD in perspective. When we assign a reading, we may normally instruct students to answer the questions at the end of the chapter for homework. Students oblige and copy the responses from the text without any comprehension. UbD would say that rather than assigning work for the sake of content coverage, we should try to engage the students to think differently. An example might be if the students are in the middle of reading a novel, we could instruct them to write the last page of the narrative. The results are twofold: the students are forced to be creative but draw from prior readings, and the teachers are able to gauge what the students understand or misappropriate about a text.

Finally, the framework for UbD suggests that teachers consider which teaching strategies they will adopt to convey the desired results with examples of assessment evidence. Wiggins and McTighe use the acronym "WHERETO" to highlight the necessary elements of lesson design:

- Help the students know **W**here the unit is going, **W**hat is expected, and **W**here the students are coming from.
- **H**ook all students and **H**old their interest.
- **E**quip students, **E**xperience the key ideas, and **E**xplore the issues.
- Provide opportunities for students to **R**ethink and **R**evise their understandings and work.
- Allow students to **E**valuate their work and its implications.
- Be **T**ailored to different needs and learning abilities.
- Be **O**rganized to maximize initial engagement as well as effective learning.

This is a helpful mnemonic to recall the essential dimensions of how we maintain the professional and personal characteristics of a supportive and formative classroom.

Curriculum Mapping

A necessary step in formalizing the UbD process in your school is to adopt some form of curriculum mapping. Curriculum mapping is the means by which teachers can document the key understandings, content, and teaching strategies on a monthly basis. It serves a range of needs. First, it documents the curriculum for levels horizontally across disciplines and vertically moving from freshman through senior courses. Documenting your curriculum gives you the opportunity to reconsider what you actually define it to be. Many disagreements about textbook choices highlight this point. A textbook is not a curriculum per se, but it serves as a medium for teachers and students to uncover what is essential about a particular subject. What you do with the textbook and how you incorporate the steps listed above are what we can genuinely call a curriculum, a pathway to understanding.

Second, mapping allows you to see where certain topics may be addressed in other disciplines. This is helpful because it helps to visualize where there is overlap and where there is redundancy in a school's curriculum. With overlap, certain topics may be introduced or elaborated upon in varying degrees across disciplines. The environment, for example, may be a topic considered for interdepartmental lesson planning to examine the science, theology, and social implications of stewardship. Redundancy indicates that a topic is covered beyond a reasonable amount of time and may be repeating the same content.

Third, the act of mapping out your curriculum establishes a common educational vocabulary for teachers. Unlike the disciplines of medicine and law, education does not always adhere to the same rhetoric across regions or subject matters. Mapping allows you the needed time to consider what you

mean by “understanding” or “assessment” or “student-centered,” terms we often employ but rarely reflect upon.

Last, by using curriculum maps, you are able to record the wisdom of veteran teachers while providing for a transparent and clear vision of curriculum for newer teachers who may be familiar with content but not necessarily the approaches needed to be successful. It serves as a collegial bridge among faculty across disciplines and experiences while holding all students to the same standards of excellence.

Conclusion

The UbD framework does not promote a “cookie cutter” approach to curriculum, wherein every school and teacher should teach in the same style with the same content. Each school has its own unique culture and values that make it distinct from others. What UbD does promote is an honest appraisal of what we, as teachers, say we do—create lifelong learners, form democratic citizens, or contribute to the moral development of our student body. But it also helps you to reflect on the rationale behind your teaching methods and suggests modest ways to continually work on your craft as educators.

About the Author of This Article

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