



Message From the Academic Dean

What Is Understanding?

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Academic Dean

The information presented in this article is based on the work of Grant Wiggins and Jay McTighe.

Historically, philosophers and thinkers have pondered the complexity of getting students to understand. Socrates used what we now call the “Socratic method” to get his students to understand by engaging them through questions rather than answers. John Dewey (1916) argued that students develop understandings through their experiences. According to Dewey, we understand when we “discover specific connections between something which we do and the consequences of that result.” Benjamin Bloom (1956) described *understanding* as internalizing knowledge or grasping the core or essence of a subject.

Getting all students to understand is a continuous challenge for teachers. In more recent educational research, Grant Wiggins and Jay McTighe argue that understanding is so complex that in order to understand *understanding* it must be discussed through six facets. The six facets of understanding help teachers to break down the complexities of learning and understanding by “uncovering” rather than “covering” material. In 1960 Jerome Bruner argued that it is not enough to simply cover material, because it makes it difficult for a student to “generalize from what he has learned to what he will encounter later. Second, the learning has little reward in terms of intellectual excitement and, third, an unconnected set of facts has a short life in memory.” When understandings are an exercise in connecting the dots, students end up forgetting or misunderstanding, and continuous reteaching is needed throughout their school experience. The key to deepening and internalizing understanding is to focus units of instruction around big ideas and ground them in the six facets. The six facets of understanding, according to Wiggins and McTighe, are explanation, interpretation, application, perspective, empathy and self-knowledge.

You might have heard me speak about the Understanding by Design model that we are using at St. Margaret’s to map our curriculum. Teachers clarify their content priorities for each unit by identifying enduring understandings or big ideas and clearly articulating what students need to know and be able to do. In getting to the knowing and doing part of curriculum design teachers have in-depth conversations about student understanding using the six facets. Below are some examples of how the six facets work in the classroom.



Upper School chemistry and physics teacher Mr. Joe Ingalls shows a student how to safely view the sun.

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Explanation: provide justified and systematic accounts of facts and data.

Examples:

- A science student provides a well-argued account of why the car on the track accelerates the way it does when the incline of the road is varied.
- Really understanding the big idea of distributive property means realizing that 9×5 can be solved by adding 5×5 and 4×5 or any combination of groups of five that add up to nine. This involves understanding about the structure of the part-to-whole relationship.

Interpretation: tell meaningful stories, provide a personal dimension to ideas and events; students construct their own meaning as they work through the issues rather than receive prepackaged interpretations.

Examples:

- An English student shows how *Gulliver’s Travels* can be read as a satire on British intellectual life and not just as a fairy tale.
- A teacher uses parables to help students make sense of their lives.

Application: ability to use knowledge effectively in new situations and diverse, realistic contexts.

Examples:

- Students use their knowledge of economics to develop an effective financial plan for saving and investing.
- Students use their knowledge of math and science to establish a plan for cleaning up an oil spill.

Perspective: critical and insightful points of view.

Examples:

- A history student explains the Israeli and Palestinian arguments for or against new settlements on the Gaza Strip.
- An English student writes a critical review of a movie that was based on a best-selling book he just read.

Empathy: the ability to get inside another person’s feeling and worldview.

Examples:

- Students work in a soup kitchen and write an essay on the experiences of the homeless after reading Charles Dickens.
- Students take on a persona of a historic figure and participate in a reenactment of a historic event.

Self-knowledge: the wisdom to know one’s strengths and weaknesses and how one’s patterns of thought and action inform as well as prejudice understanding.

Examples:

- A student mindful of his or her learning style uses a graphic organizer to take notes in class.
- A student is asked to propose solutions to an ineffective cooperative learning exercise on the basis of what didn’t work in the group.

