

Quotes on Rigorous Learning

- 1. "Some of you may be thinking, "Well, if you pass a test, or become valedictorian, didn't you learn something? Well, yes, you learned something, but not all that you could have." ... "I saw every subject of study as work, and I excelled at every subject just for the purpose of excelling, not learning. And quite frankly, now I'm scared." (Erica Goldson, Valedictorian, *The Swift Kick*, OH)**
- 2. "Being adaptable in a flat world, knowing how to learn will be one of the most important assets any worker can have." (Thomas Friedman, *The world is flat*)**
- 3. "Teachers should give students some freedom to present their work in a way that they can comprehend, that way the student can learn more and it can stay with them longer." (Middle School student)**
- 4. "Middle school students learn a whole lot better when they are not being lectured to, being directed,**

forced, or ordered, but when choice is given and learning is interactive." (Middle School student)

- 5. "Rigor is learning how to try, try again." It is about having a flexible mindset with growth as the goal. She so eloquently adds, "It is the effort of learning and the learning itself. It is the persistence to grapple with the work." (Dweck, 2006)**

- 6. "Knowledge is deep when, instead of being able to recite only fragmented pieces of information, students express relatively systematic, integrated or holistic understandings of central concepts. Mastery is demonstrated by students when they are discussing relationships, solving problems, constructing explanations, and drawing conclusions." (Newman, 2001)**

- 7. "Rigor in a learning experience requires focused attention and a deliberate intention to understand and retain that understanding. To command that kind of focus, the matter being studied must be worthy and the methods of learning must be engaging. The ideal learning takes place when we are so engaged by what we are thinking about that we don't notice anything else—we are totally focused. In sports, this intensely focused state is known as being *in the zone*. Another apt description is *being in flow*." (Csikszentmihalyi, 1990.)**

- 8. "The rigor in a middle school curriculum lies not in painful abstraction, rather it lies in its capacity to engage the intellectual curiosity and imagination of young adolescents." (James Beane)**

- 9. "Learning is a consequence of experience. People become responsible when they have really assumed responsibility; they become independent when they have experienced independent behavior; they become able when they have experienced success; ...people become responsible and independent not from having someone tell them that they should be responsible or independent, but from having experienced authentic responsibility and independence." (Angelo V. Boy and Gerald Pine, 1971)**

- 10. "Higher order thinking requires students to manipulate information and ideas in ways that transform their meaning and implications. This occurs when students combine facts and ideas in order to synthesize, generalize, explain, hypothesize or arrive at some conclusion or interpretation. Manipulating information and ideas through these processes allows students to solve problems and discover new (for them) meanings and**

understandings. When students so engage, an element of uncertainty is introduced into the instructional process and makes instructional outcomes not always predictable." (Fred Newman, The Consortium on Chicago School Research-University of Chicago, 1999)