

## STUDENT-CENTERED OPPORTUNITIES FOR RIGOR, RELEVANCE, AND ENGAGEMENT

### **Construction of Knowledge: Higher-Order Thinking**

Students manipulate information and ideas in order to synthesize, generalize, explain, hypothesize, or arrive at some construction of new meaning or understanding. Manipulating information and ideas through these processes allows students to solve problems and discover new (for them) meanings and understandings. When students engage in HOT, an element of uncertainty is introduced, and instructional outcomes are not always predictable.

### **Disciplined Inquiry: Substantive Conversation**

There are three features of substantive conversation. The talk is about subject matter in the discipline and includes higher order thinking, such as making distinctions, applying ideas, forming generalizations, or raising questions (not just reporting of experiences, facts, definitions, or procedures). The conversation involves sharing of ideas and is not completely scripted or controlled by one party (as in teacher-led recitation). The dialogue builds coherently on participants' ideas to promote improved collective understanding of a theme or topic.

### **Disciplined Inquiry: Deepening Knowledge Creates Meaningful Questions**

Instruction is organized around essential questions that allow students to focus on a significant topic and demonstrate complex understanding by using reasoned and supported explanations. Knowledge is thin or superficial when it does not deal with significant concepts of a topic or discipline. Shallow concepts don't create opportunities to construct or ask meaningful questions. Knowledge is deep when students make clear distinctions, develop arguments, formulate questions, solve problems, construct explanation and otherwise work with complex understandings and articulate their knowledge to others.

### **Value Beyond School: Real World Connections**

Students can influence a larger audience by communicating knowledge to others (including within the school), advocating solutions to social problems, providing assistance to people, or creating performances or products with utilitarian or aesthetic value. In a class with little or no value beyond the lesson itself, activities are deemed important for success only in school with no impact on others and serve only to certify their level of compliance with the norms of formal schooling. A lesson gains authenticity when there is a connection to the larger social context or community in which students live such as addressing a relevant problem or using personal experience.

### **Student Autonomy: Shared Control**

Instruction provides student ownership of the learning environment focused on personal experience and prior knowledge with teacher and student sharing control of the learning. Assessments (formative or summative) can increase student autonomy when opportunities are provided for choice on how to demonstrate knowledge and understanding of complex concepts. Support encourages student ownership and can include teacher behaviors such as offering students choice of media to present ideas. Support encourages student ownership of learning and can include teacher behaviors such as asking students to justify or argue their point, generate their own solution paths, or evaluate their own and others' solutions or ideas.

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