

What is Quad D?

Quad D describes a kind of learning that is characterized by high academic rigor as well as the application of knowledge to solve real-world problems. Students who are exposed to Quad D learning have the competence to think in complex ways and to apply the knowledge and skills they have acquired to solve predictable, and unpredictable problems. In Quad D learning, students acquire the ability to use their extensive knowledge and

skills to create solutions, and to take actions that further develop their skills and knowledge.

The Quad D concept springs from the Rigor-Relevance framework that combines measures of academic rigor with an application model. Rigor is defined with Bloom's Taxonomy, which begins with knowledge and awareness, and builds toward higher-order thinking skills. Thus, students proceed from simple knowledge acquisition to

comprehension, application, analysis, synthesis, and evaluation.

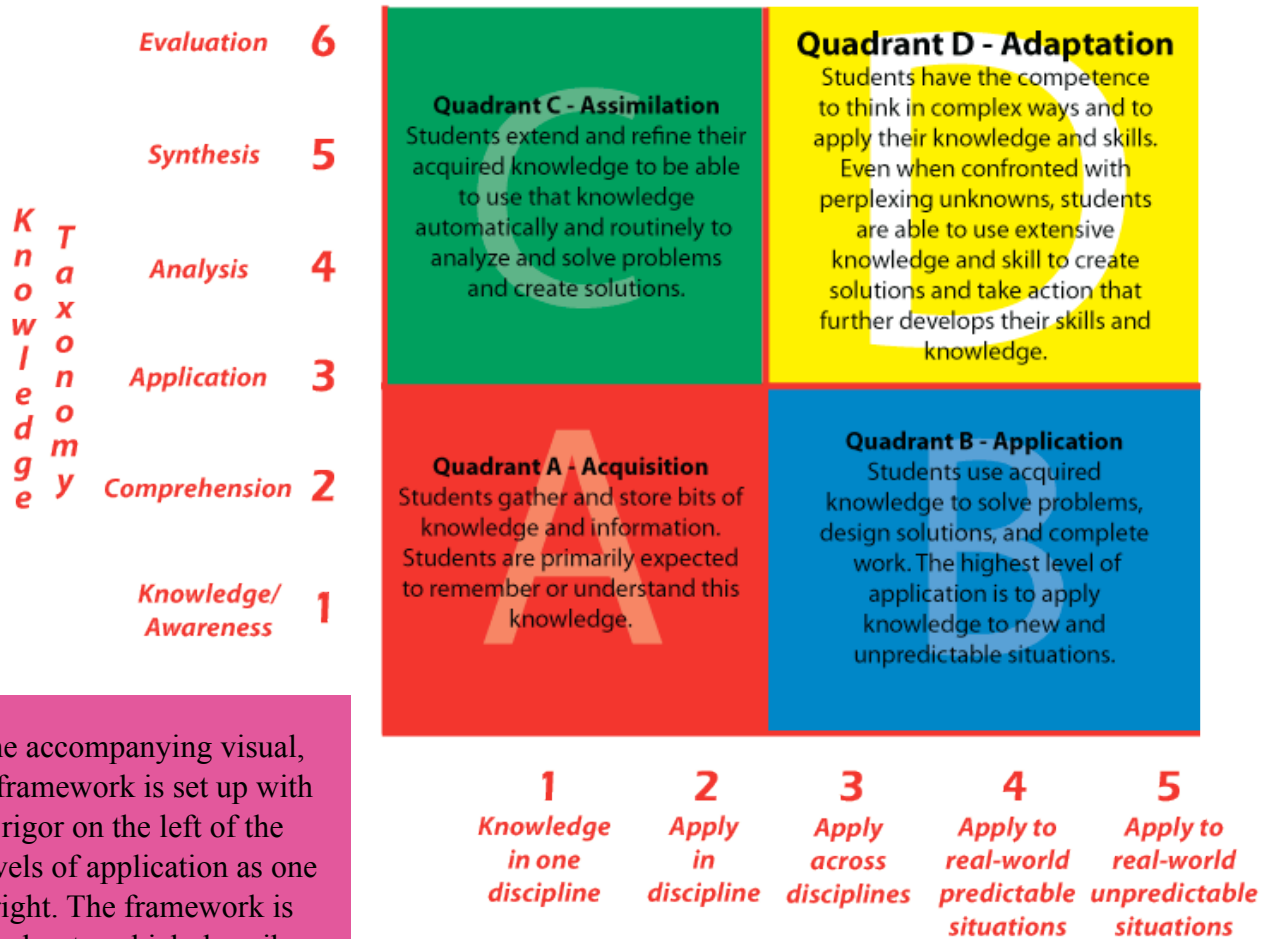
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The other part of the Rigor-Relevance framework addresses the degree to which acquired knowledge is used. In this application model, students begin with knowledge in one discipline, and learn how to apply the knowledge within that discipline. They progress to applying knowledge across disciplines, and by applying their knowledge to real-world predictable and unpredictable situations.

Rigor/Relevance Framework™

International Center for Leadership in Education



As you can see in the accompanying visual, the rigor-relevance framework is set up with increasing levels of rigor on the left of the chart, and higher levels of application as one moves from left to right. The framework is divided into four quadrants, which describe the level of rigor and relevance associated with each type of learning.

Quadrant A is termed “Assimilation” and represents the lowest level of academic rigor and knowledge application. At this level, students gather and store information, and are simply asked to recall the information when tested.

Quadrant B is “Application” in which students use acquired knowledge to solve problems, design solutions, or complete work. This type of learning often applies to career or technical training which involves a limited amount of basic knowledge, but a high degree of real-world application.

Quadrant C is termed “Assimilation.” It is high in academic rigor, and represents more complex thinking, but does not involve much application to real-world problems (ie, it is still knowledge for its own sake).

Quadrant D is termed “Adaptation” and represents the highest degree of both rigor and relevance.

Quadrant D learning is often project-based, and designed to develop critical thinking skills. **Quad D** lessons are characterized by a high degree of student engagement and student exploration of knowledge and concepts that go beyond the curriculum. It is **Quad D** learning that is most likely to give students the skills they need to be competitive in a global economy.

WHY THE SUDDEN FOCUS ON CRITICAL THINKING SKILLS?

With all the talk about Quad D lessons, many teachers are asking why DV is suddenly focusing on critical thinking skills. Actually, the focus is not new. Critical thinking skills have been part of the district's strategic plan since its inception. The teachers, administrators, and community members who worked on the strategic plan agreed that in order for students to be successful in a global economy they will need to be life-long learners who can assimilate and evaluate new knowledge and apply that knowledge to solving unpredictable problems.

In the fall of 2006, we embarked on the Middle States evaluation process, which is designed to improve education by evaluating the degree to which schools have attained the goals identified in the district's strategic plan. This process is accomplished by periodically conducting a comprehensive self-evaluation of the total institution.

Through the accreditation process, the school district obtains professional judgment from impartial outsiders on the effectiveness of its total operation. DV's strategic plan revolves around student achievement objectives in academics and citizenship. The development of critical thinking skills has been a part of these objectives since their development, and

continues to be an area targeted for improvement.

As DV continues to evaluate its current programs and plan for improvements that will help us reach our goals, we research programs that have proven to be effective at high-performing schools across the nation. One organization that highlights the work of these "model schools" is the International Center for Leadership in Education (ICLE). Teachers, administrators, and board members have attended ICLE conferences and leadership training programs to evaluate how successful programs that promote critical thinking skills have been implemented in other school districts, and how those programs can be adapted to the unique needs of DV students. Quad D at DV is one initiative that has resulted from that process.

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LINKS:

International Center for Leadership in Education
<http://www.leadered.com>