EMBEDDING RIGOR

INTO G/T LEARNING EXPERIENCES

Embedding Rigor and Relevance into G/T Learning Experiences

Embedding ***rigor*** into the teaching and learning process involves a diverse repertoire of strategies targeted toward varied content difficulty levels. Strong, Silver, and Perini (2001) define rigor as "the goal of helping students develop the capacity to understand content that is **complex, ambiguous, provocative, and personally or emotionally challenging**" (emphasis added). Rigor is not quantity, rather it is quality. It is not about severity or hardship-- classrooms should be warm and challenging! Rigor is not about back-to-the-basics; instead, it focuses on students working with difficult ideas and texts, which must be supported with direct instruction in the skills necessary to manage difficult content (e.g., summarizing, skimming, gathering notes).

A rigorous environment provides a **provocative** level of learning that is conceptually challenging and engages students in taking positions and discovering problems. Ideas should interact and overlap, providing **complex** content for the gifted student. Layers of curriculum found in documents, poetry, statistics, etc. are filled with multiple meanings that provide students with the opportunity to examine and sort significant patterns. Additionally, a **personally challenging** learning environment provides students with a better sense of how the world works, and their place in the world.

The characteristics of rigor can be found in the research findings of Joseph Renzulli. Renzulli (1977) finds that the three essential student traits of "above average ability, task commitment, and creativity" must be evident for a student to address a problem and form an investigation that ultimately allows a student to share his/her findings with an appropriate audience. Instead of focusing on helping students learn predetermined facts, generalizations and conclusions, student should be taught how to actively engage in gathering information to use to transform a problem from the "idea-stage to the final product." Students must be taught "information processing strategies" as they begin to work in a laboratory type environment. The laboratory environment is a "mood and an atmosphere and a series of investigative activities" where students can gather, manipulate, and use raw data and pre-existing information to create a new and unique product (Renzulli, 1977). Additionally, individual student interest should be a foundation for content areas a student will study during an enrichment activity. According to Joyce VanTassal-Baska (2002), high level content should "engage the student in problem-finding and problem-solving and put him in contact with adult practitioners."

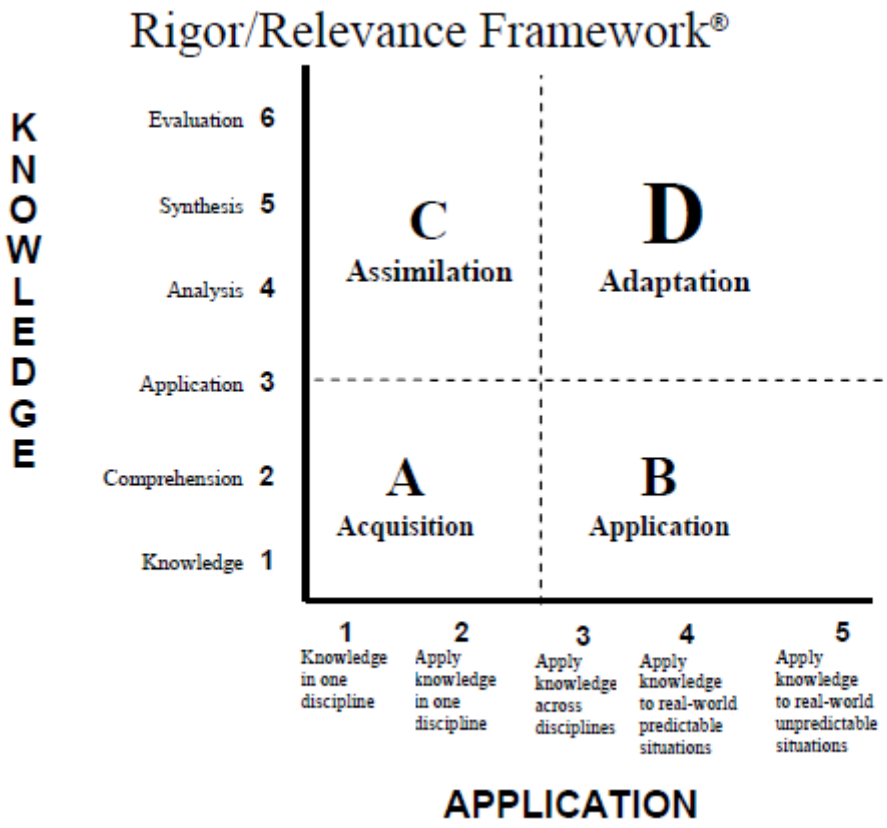
Gifted and talented students involved in a rigorous level of activity in the classroom setting are challenged to engage in knowledge acquisition, communication, reflection, problem-solving, inquiry, and knowledge acquisition. Content that is complex (intricate and interrelated ideas), ambiguous (rich in images, multiple meanings, and symbols), provocative (challenges thinking and behavior), and personally or emotionally challenging (brings about strong or new feelings), will provide gifted and talented students a rich and fulfilling educational experience, preparing them not only for, academic success during college, but also, for real world experiences in fields for which they are prepared to excel.

While it is understood that rigor is essential in the G/T classroom rigor without relevance can lead to "rigor mortis" according to Joseph Renzulli (2009) and Richard Jones (2010). In many cases embedding rigor fails to incorporate this most important aspect of gifted students' learning. Career and technology courses often meet the directed learning needs of their students by being very relevant in their structure and delivery but with a questionable level of rigor. On the opposite side of the coin, gifted education and college prep programs are designed and delivered with a very high degree of rigor but fail to implement much relevance. With the consistent focus on state testing

and accompanying accountability measures over the last decade teachers have become less flexible in lesson design and delivery focusing on minimal recall of basic knowledge and skills. This denies all students' ability including that of gifted students to understand how their gained knowledge is applicable in real-world situations. When this occurs knowledge has a much lower chance of retention and recall beyond the last exam as the student has no reference for future use and moves on to the next unit of information to be regurgitated on the next exam.

While there are many approaches to the inclusion of relevance to rigorous instruction a very concise and instructive approach was developed by the International Center for Leadership in Education by lead author Richard Jones and found in the *Rigor and Relevance Handbook: Second Edition* (2010) which expands upon the original research from 2004.

A very instructive view developed in this research is the ***Rigor/Relevance Framework***. This framework dissects learning upon the taxonomy of knowledge, previously developed by Bloom (1956), and expands it to include relevance. It turns Bloom's Taxonomy's linear progression into a quadrant system:



The familiarity of the Bloom's Taxonomy on the y-axis on the above chart has been a guiding principal for teachers since the 1950s and has guided instruction to lead towards rigorous learning above the analysis level. The addition of relevance along the x-axis provides the guidance necessary to ensure that if instruction is at the level of 3 or greater on each axis students' potential of learning is the most authentic.

As Willard Daggett stated in his 2005 white paper introducing the above quadrant system students who adapt to learning styles and aptitudes of Quadrants A and C "would be challenged to develop skills they will need to compete in the global job market. Although they may be great students and score well on tests, many are not prepared for success in the work force. Students with Quadrants B and D learning styles…will understand the theory and practice behind what they are learning".

The following list (though not all inclusive) of instructional strategies have been found to be significantly effective in providing both rigor and relevance in lessons:

Community Service: if based in student development of research and questioning helps students understand the value of learning by solving real world problems and giving back to the community.

Cooperative Learning: allows students the opportunity to solve problems in structured groups.

Creative Arts: allows students to express their learning in unconventional ways and broadens perspective of product throughout different curriculum areas.

Demonstration: causes the student to become an expert in the area being demonstrated using manipulation of materials and objects in direct observation and questioning by an audience.

Internship: allows the student to apply knowledge and see knowledge applied daily in a real-world work environment.

Problem-based Learning: introduces concepts or expands on previously taught concepts through the use of problem-solving skills. This works best for the GT student when the problem and/or the method for solution is one discovered or developed by the student.

Research: formal means of investigation that leads to new ideas and concepts through retrieval of information. Works best for the G/T student when the topic and product are student designed and presentation or exhibition is required.

Simulation/Role Playing: allows for replication of integration of real-world application of knowledge and skills.

These and similar types of learning experiences prepare students to adapt their knowledge and skills learned into a more rewarding academic career that should lead to a more productive post-academic experience.

Works Cited

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