

Enhancing the Rigor and Relevance in Lessons

Daniel J. Jansen
Gregory W. Thompson
Oregon State University

112 Strand Agriculture Hall
Corvallis, OR 97331
541-737-2661
dan.jansen@oregonstate.edu

Enhancing Rigor and Relevance in Lessons

Introduction

The changing educational climate stressing higher academic achievement for students and instructional lessons that promote academic excellence is a reoccurring theme in educational reforms. In an effort to help pre-service teachers in agricultural education evaluate the potential impact lessons will have on student learning, Oregon State University added critical elements to reflect the current trends of increased accountability in lesson design and implementation.

The existing Oregon State University agricultural education lesson plan format remains the foundation for the lesson. The Rigor and Relevance Framework (figure 1.) has been added to the lesson plan format to support increased expectations of a well planned lesson and creation of lessons which are aligned with state and national standards. The framework allows the teacher to classify the strength of the lesson based on the level of knowledge processing expected from the lesson content and the level of application in the lesson.

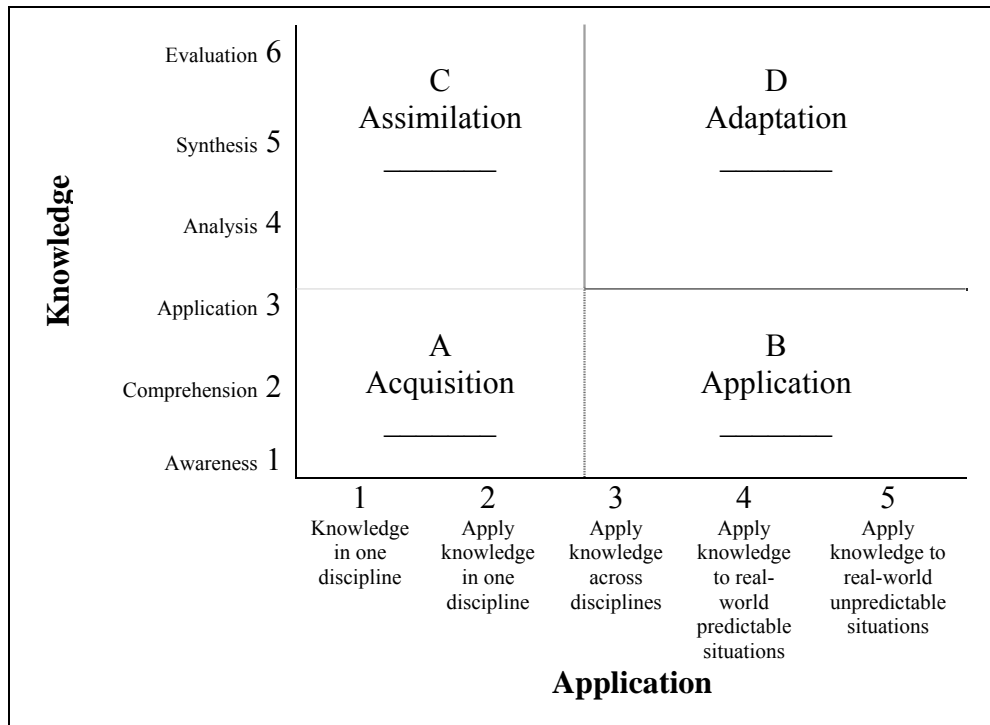


Figure 1. Rigor/Relevance Framework®

How it Works

The Rigor/Relevance Framework® (Daggett, 2005) utilizes Knowledge and Application taxonomies located on separate axis to define quadrants representing levels of student learning. The Knowledge taxonomy representing the y-axis is comprised of Bloom's six levels of thinking or knowledge processing. Bloom's scale has a range beginning at the lowest level associated with awareness of information to the highest level of information processing through evaluation. The application scale defined by Daggett, describes five levels of how knowledge can be situated

and used. This scale ranges from the low end of instruction providing a student with abstract knowledge, to an upper level of instruction providing application of knowledge to real-world situations.

The four quadrants of learning or student performance emerge from the relationship between Knowledge and Application scales. These levels are defined in figure 2.

| | |
|---|--|
| <p>Quadrant C - Assimilation Students extend and refine their acquired knowledge to analyze and solve problems and create solutions.</p> | <p>Quadrant D – Adaptation Students have the competence to think in complex ways and to apply their knowledge and skills to unpredictable situations.</p> |
| <p>Quadrant A - Acquisition Knowledge acquisition based on memorization of facts and figures.</p> | <p>Quadrant B - Application Students use acquired knowledge to solve problems, design solutions, and complete work.</p> |

Figure 2. Four Quadrants of Learning (International Center for Leadership in Education, 2007)

The lowest level quadrant is Acquisition. This is considered rote memorization or abstract baseline information merely to provide back-grounding for students to build upon. The Application quadrant combines baseline information with problem solving activities. Assimilation and Adaptation both require upper level Bloom’s taxonomic classification of Analysis, Synthesis, and Evaluation. Adaptation differs from Assimilation in that instruction expands principles beyond the target discipline or provides real-world situations requiring manipulation of abstract knowledge.

Results

The benefit of Rigor/Relevance Framework assists student teachers with designing lessons to meet the demands essential of academically challenging curriculum. The Rigor/Relevance Framework becomes a tool to assist pre-service teachers in designing individual lessons that combine practical application with student engagement in critical thinking. Such connections help to strengthen student learning outcomes and curriculum accountability.

Pre-service teachers have grown in their understanding of Bloom’s taxonomy and how to integrate it into a lesson plan. The Rigor/Relevance scale helps pre-service teachers focus on lessons and student work/activities that require both complex thinking and application of knowledge to real-world situations. Administrators have been impressed with the pre-service teachers’ understanding of rigorous lesson plan development and their knowledge of student learning that is associated with the lesson.

References

- Daggett, W. R. (2005, September). *Achieving academic excellence through rigor and relevance*. Retrieved January 10, 2008 http://www.daggett.com/pdf/Academic_Excelsence.pdf.
- International Center for Leadership in Education (2007). *Rigor and relevance framework*. Retrieved January 10, 2007 from <http://www.daggett.com/rigor.shtml>.