Chapter 1: Blueprint for Deeper Learning

Design Principles Aligned with Hattie Research

These eight design principles lead to authentic and engaging learning experiences and are supported by research.

Design Principles for Student Learning	Research: Specific Approaches and Effect Sizes (Hattie, 2015)
1. **Learning goals and success criteria:** Any great lesson begins with clear goals for what students need to know and be able to do. Goals, coupled with criteria for success, should be communicated to students in a manner that clarifies expectations and serves as a guide for self-assessment.	• Teacher clarity .75 • Mastery learning .57 • Goals .40
2. **Compelling content and product:** Beyond discrete standards, teachers have the opportunity to connect content and performance expectations to real-world problems or situations for students to solve. Learning experiences that offer authentic, interdisciplinary tasks provide relevance and promote curiosity for students.	• Conceptual change programs 1.16 • Problem-solving teaching .63 • Integrated curricula .47 • Concentration/engagement .45
3. **Collaborative culture:** Learning is social and the purposeful inclusion of collaboration throughout the learning process is highly engaging for students. Collaborative opportunities have endless design options such as flexible groups, partners, peer tutoring, Socratic seminars, academic discussions, and online experts.	• Classroom discussion .82 • Reciprocal teaching .74 • Cooperative vs. individualistic .55 • Peer tutoring .55 • Classroom cohesion .53
4. **Student empowerment:** Student ownership in learning increases exponentially when students are given choice over how to show mastery or create a final product or performance, including digital tools and resources. Additionally, students invited to provide input into what they learn and how they want to engage with the content are thereby allowed to play the role of co-designer.	• Cognitive task analysis .87 • Acceleration .68 • Teacher-student relationships .52 • Self-concept .47 • Motivation .44

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5. **Intentional instruction:** Evidence-based strategies reflecting the learning goals should be carefully selected in order to have the greatest impact. Use of the Gradual Release of Responsibility (GRR) model provides structure for direct instruction and modeling *(show them)*, guided practice (*help them*), and helping students to become independent learners (*let them*).	• Response to intervention 1.07 • Micro-teaching .88 • Concept mapping .64 • Teaching strategies .60 • Direct instruction .60 • Metacognitive strategies .53 • Scaffolding .53 • Questioning .48
6. **Authentic tools and resources:** A variety of tools and resources, both print and digital, should be leveraged to create a final product as well as to assist students throughout the learning process. Providing a variety of tools offers students choice and emphasizes process over product. Digital tools and strategies such as blended learning, flipped classrooms, and production tools offer rich experiences that are highly engaging and honor the ways in which students like to learn and create.	• Creativity programs .65 • Service learning .58 • Interactive video methods .54 • Computer-assisted instruction .45
7. **Focus on literacy:** Regardless of the lesson content, reading, writing, and speaking should be incorporated into every learning experience. Expose students to multiple texts, primary and secondary sources, and online resources. Engage students in opportunities to write and write often (e.g., lab reports, technical manuals, narrative stories, research summaries, opinion papers, or interactive student notebooks).	• Vocabulary .62 • Repeated reading programs .60 • Comprehension programs .53 • Writing programs .49 • Communication .43 • Exposure to reading .42

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8. **Feedback for learning:** Throughout the learning experience feedback loops should give students guidance on their progress toward the learning goals. This feedback can be teacher-to-student, student-to-student, or self-assessment. Feedback must be formative and provide students with the safety and security that lets them take risks and try new things without the fear of failure.	• Assessment capable learners (self-reported grades) 1.33 • Feedback .73 • Formative evaluation .68 • Self-questioning .64

Note: An effect size of .40 or greater is considered significant and is equal to one year's growth in one year's time. Anything greater will accelerate student learning (e.g., an effect size of 1.0 can result in two years of growth in one year).

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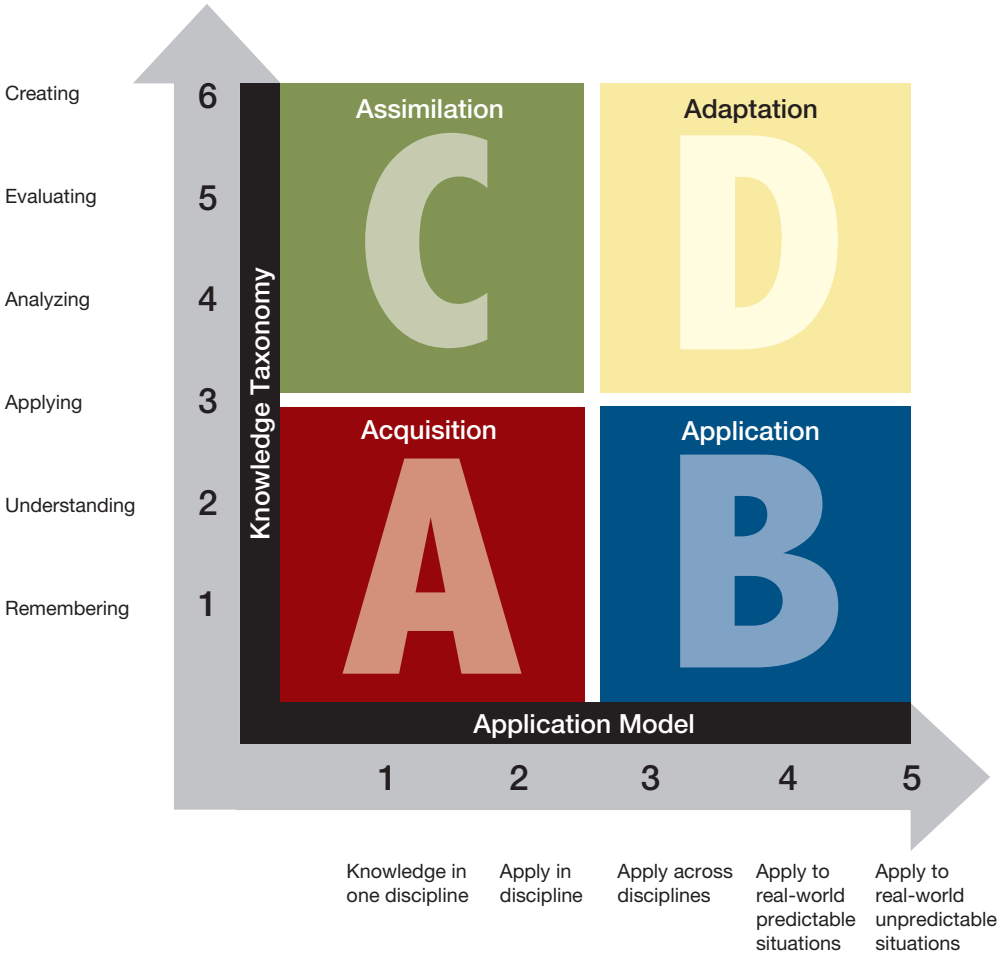
Rigor Relevance Framework

Rigor/Relevance Framework®



A	B	C	D
› Students gather and store bits of knowledge and information. Students are primarily expected to remember or understand this knowledge.	› Students use acquired knowledge to solve problems, design solutions, and complete work. The highest level of application is to apply knowledge to new and unpredictable situations.	› Students extend and refine their acquired knowledge to be able to use that knowledge automatically and routinely to analyze and solve problems and create solutions.	› Students think in complex ways and can apply their knowledge and skills. Even when confronted with perplexing unknowns, students can create solutions and take action that further develops their skills and knowledge.