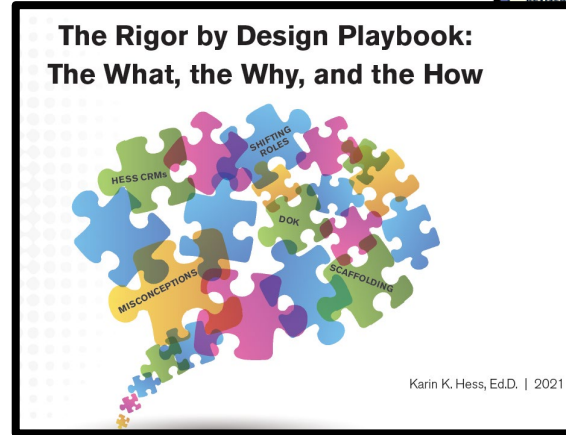
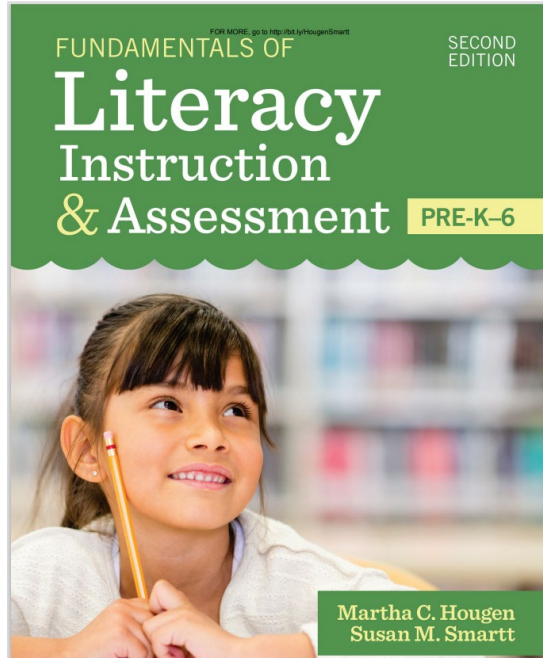
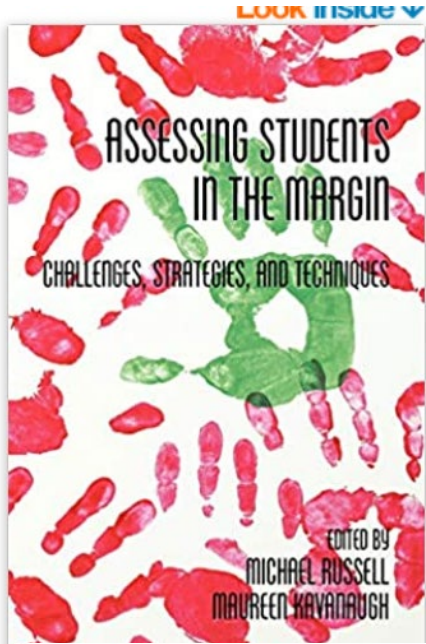
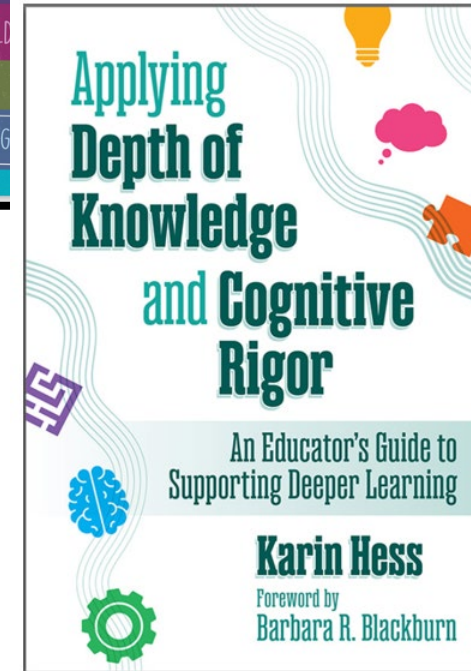
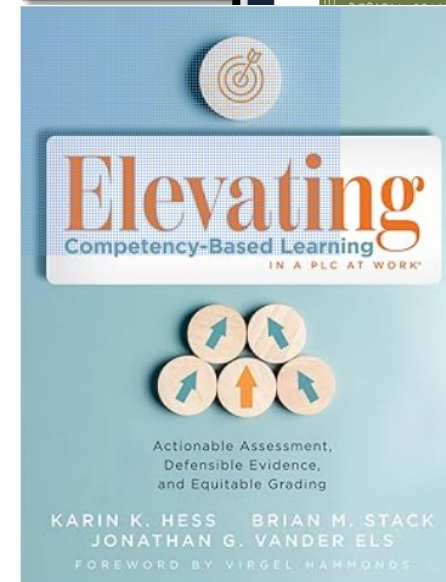
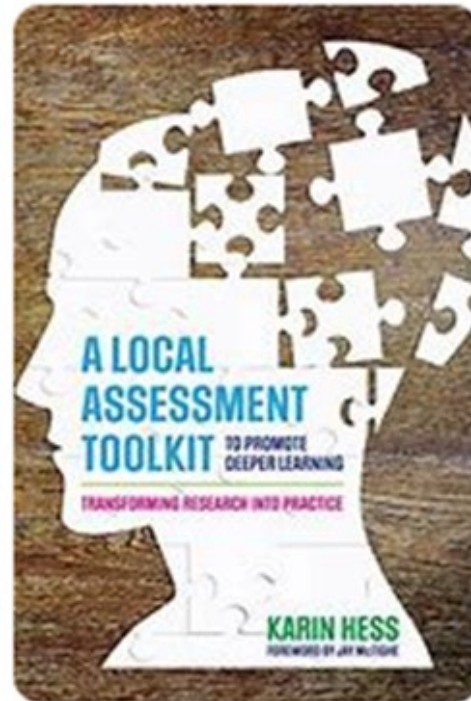
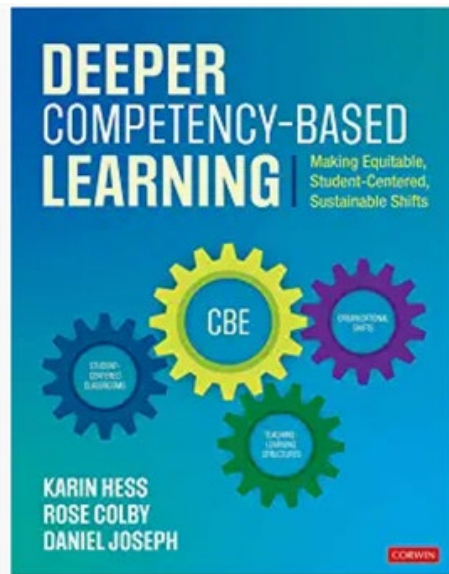
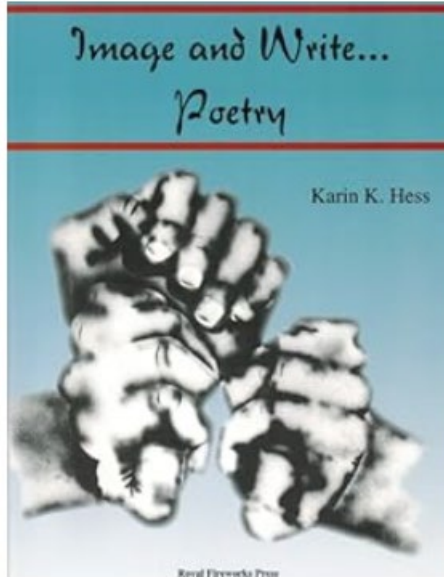


# Karin Hess Resources



**TOOL 2** HESS COGNITIVE RIGOR MATRIX (MATH-SCIENCE CRM):  
Applying Webb's Depth-of-Knowledge Levels to Bloom's Cognitive Process Dimensions

Revised Bloom's Taxonomy	Webb's DOK Level 1 Recall & Reproduction	Webb's DOK Level 2 Skills & Concepts	Webb's DOK Level 3 Strategic Thinking/Reasoning	Webb's DOK Level 4 Extended Thinking
Recall	Recall/ identify conversions among representations or numbers (e.g., customary and metric measures)	Use these Hess CRM curricular examples with most mathematics or science assignments or assessments.		
Understand	Clarify, paraphrase, re-illustrate, give examples, summarize, logical conclusion, contrast, match like abstract models	<p><b>RIGOR BY DESIGN NOT CHANCE</b>   KARIN HESS</p> <p>Deeper Thinking Through Actionable Instruction and Assessment</p> <p>ASK QUESTIONS BUILD SCHEMA CONSIDER SCAFFOLDING</p>		
Apply	Apply procedure in a variety of contexts	<ul style="list-style-type: none"> <li>Rebate mathematical or scientific concepts to other content areas, other domains, or other concepts</li> <li>Develop generalizations of the results obtained and the strategies used (from investigation or readings) and apply them to new problem situations</li> <li>Select or devise approach among many alternatives to solve a problem</li> <li>Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results</li> </ul>		
Analyze	Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct	<ul style="list-style-type: none"> <li>Analyze multiple sources of evidence</li> <li>Analyze complex/abstract themes</li> <li>Gather, analyze, and evaluate information</li> </ul>		
Evaluate	Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique	<ul style="list-style-type: none"> <li>Gather, analyze, &amp; evaluate information to draw conclusions</li> </ul>		



# Related Resources – Part 1 Keynote

- **Hess Cognitive Rigor Matrices** - [Cognitive Rigor and DoK | Karin Hess, PhD \(karin-hess.com\)](#)
- **Hess Blogs (rubrics, scaffolding, etc.)** [BLOG | Karin Hess, PhD \(karin-hess.com\)](#)
- **6 ways Poster/Task Cards (updated 2024)** [5e86bd\\_f8e477542dc44d6e8ea6e57d2a6d4e10.pdf](#)
- **Math Problem-solving with reasoning (ratio example)** [5e86bd\\_d9d8e2a4e1394069842a264c782205f3.pdf](#)
- **Turn & Talk examples** - [NHCTE\\_Packet\\_Final\\_May5th \(1\).pdf \(karin-hess.com\)](#)
- **DOK Sketchnotes** [5e86bd\\_c50bc6d2169c47f79c469d67d3d13360.pdf](#)
- **Excerpts from *Rigor by Design, Not Chance* (2023)** [Rigor by Design Excerpts | Karin Hess, PhD \(karin-hess.com\)](#)
- **Would you rather math** <https://www.wouldyourathermath.com/>
- **Hexagonal thinking Video** [Quick Hexagonal Thinking in your class! \(youtube.com\)](#)
- [The effects of generating examples on comprehension and metacomprehension \(researchgate.net\)](#)
- <https://www.edsurge.com/news/2019-10-28-why-struggle-is-essential-for-the-brain-and-our-lives>

# Related Resources – Part 2 Keynote

- [Show What You Know - The Core Collaborative](#)
- **One pager examples** [5e86bd\\_6117a57cb2514ad79a73f66550f5af5d.docx \(live.com\)](#)
- **Text Deck (poem example)** [Small Words](#)
- **Excerpts from *Rigor by Design, Not Chance* (2023)** [Rigor by Design Excerpts | Karin Hess, PhD \(karin-hess.com\)](#)
- **CBE and PLB Resources - Excerpts from *A Local Assessment Toolkit* (2018)** [APPLYING RIGOR TO PBL-CBE | Karin Hess, PhD \(karin-hess.com\)](#)
- [Microsoft Word - Complex vs Difficult-v5-posted \(karin-hess.com\)](#)
- **Article:** [5 Quick Ways to Uncover Hidden Learning Using Metacognition \(middleweb.com\)](#)
- **Article: Complex Tasks Every Student Can Accomplish** [Every Student Can Be Successful ith These Complex Tasks](#)
- **Video, Chapter 1, *Rigor by Design* - Karin's "Handy" Brain Model video**
- **Article: 6-word memoir** - <https://www.edutopia.org/article/breaking-ice-student-made-videos>
- **Article: Why I Scrum Why I Scrum: Using a Project Management Tool for PBL | PBLWorks**