Five Learning Laws Table,

excerpted from Trust the Science: Using brain-based learning to upgrade our educational OS

Learning Law #1: Humans continuously learn from and adapt to their experience.	
Our Industrial-Age Operating System...	**A Brain-Based Operating System Would...**
Creates curricula that are disconnected from, and often discounting of, students' pressing questions about their experiences.	Design learning experiences in sync with students' emerging conceptions of and questions about their experiences and interest.
Rewards students for demonstrating grit and persistence in the pursuit of short-term learning.	Inspire students to tap their highest energies as they pursue long-lasting learning.
Makes learning a private, individual, and competitive race that celebrates getting into a good college.	Make learning a public, social, and collaborative celebration of learners' growth and their current aspirations.
Learning Law #2: We learn best by performing badly at something we want to get better at.	
Our Industrial-Age Operating System...	**A Brain-Based Operating System Would...**
Separates most learning from a real purpose, performance, and audience.	Connect most learning to a real purpose, performance, and audience.
Perpetuates the misconception that learning is a linear process that begins with knowledge acquisition rather than "getting in the game."	Enact the scientific finding that learning is a nonlinear process that works best when we're "in the game."
Practice massed learning, disrupting sleep and well being in ways that cause fatigue, forgetfulness, and anxiety.	Practice spaced learning, improving consolidation, performance, and well being.
Learning Law #3: Why and how we measure learning, impacts learning.	
Our Industrial-Age Operating System...	**A Brain-Based Operating System Would...**
Creates a culture of compensation that incentivizes extrinsic learning, conditioning students to invest only enough energy to earn the pay (scores)	Create a culture of communication that incentivizes intrinsic learning, conditioning students to invest their highest energies to achieve their

they want.	personal best.
Requires teachers to determine and report students' quarterly learning and provide an annual report summarizing the year's learning with a single grade, number, or symbol.	Require students to document and share the story of their learning, creating a portfolio that provides a current and long view of who the learner has been, who they've become, and who they are becoming.
Prepares students for valid and reliable standardized tests, which narrow learning to content that can be measured (and forgotten) easily.	Prepare students for life by engaging them in the complexity of their current lives, which expands learning by inspiring students to become their best selves.
Learning Law #4: Human beings construct their own understanding of their world.	
Our Industrial-Age Operating System...	**A Brain-Based Operating System Would...**
Perpetuates a model of teaching and learning that assumes that students learn by listening to experts.	Enact a model of teaching and learning that assumes that students must construct lasting learning.
Resorts to "never enough time instruction", racing over content in the name of coverage and test prep.	Employ "just in time instruction", staying in sync with their learners' emerging conceptions in the name of enduring learning.
Creates a culture of overload and fragmentation; students study disconnected disciplines out of context and with no connection from year to year.	Create a culture of coherence and connectedness; students practice disciplines to help them answer the recurring questions, *Who am I? Why am I here? What will I do?*
Learning Law #5: Expectations impact performance.	
Our Industrial-Age Operating System...	**A Brain-Based Operating System Would...**
Expects that most students are not capable of or ready to call on their highest energies to learning deeply.	Expect that all students can learn deeply, when the experience challenges that call on their highest energies.
Focuses on creating structures and systems that punish disengaged students and reward gritty students.	Focus on creating structures and systems that inspire, respect, and celebrate the wild learner in all our students.
Narrows expectations to get data that show whether same-aged students are meeting particular content-based proficiencies each marking period.	Expand possibilities by engaging students in long-term projects and require the development of transferable skills and the enduring learning of content.

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