

Traditional schooling is wasting time, money, and learner potential. The complexities of the specialized “core” subjects are being introduced before learners grasp the basics of sense making and the structure of knowledge. The chart below contrasts two organizers of information—core subjects, and the much simpler, comprehensive, systemically integrated, intuitively known, “When-Where-Who-What-Why?”

Fragmented core curricula — Systemically integrated curricula

Problem:	disengagement and learning loss	—	inadequately understood reality
Cause:	assumed poor teacher performance	—	information overload/conceptual clutter
Solution:	market forces, learner rigor and grit	—	adopt optimal mental organizers (WWWWW)
Aim:	master content of core subjects	—	improve sense-making ability
Learning unit:	individuals in classrooms	—	small learning teams
Learning theory:	knowledge is delivered	—	understanding is constructed by learner
Teacher role:	organizing delivery	—	co-learner and dialogue stimulator
Learner role:	absorb information	—	construct descriptive/analytical model of reality
Major task:	acquire, remember information	—	solve sequenced model-generated “puzzles”*
Major task:	exam preparation	—	apply model to increasingly complex realities
Learning mode:	passive, externally directed	—	active, autonomous
Content organizers:	core subjects	—	primary information organizers (WWWWW)
Cognitive processes:	recall & low-level application	—	all thought processes, relationships, interactions
Major resources:	text, teacher talk, Internet	—	reality and primary data; peer dialogue
Proof of learning:	recalls delivered content	—	makes sense of complex, unfamiliar realities
Evaluation:	standardized tests	—	subjective judgment**

***Jerome Bruner, “The Act of Discovery” (essay):** *“We solve a problem or make a discovery when we impose a puzzle form on a difficulty to convert it into a problem that can be solved in such a way that it gets us where we want to be.”* In the three courses of study linked below, learning teams work their way through sequenced, intellectually challenging “puzzles” that help them lift into consciousness, elaborate, refine, and put to useful work the mental models of reality that give them identity and shape individual and collective thought and action.

** Making sense of systemic relationships and interactions between and among aspects of reality requires inferring, imagining, hypothesizing, predicting, sequencing, extrapolating, valuing, generalizing, and so on—thought processes too complex and interwoven for their quality to be evaluated by standardized tests.

Three free illustrative how-to-do-it courses written for middle school and older students:

Thinking about thinking: [Introduction to Systems](#)

Applying the sense-making process—American history: <http://www.marionbrady.com/AHH.asp>

Applying the sense-making process—World history: <http://www.marionbrady.com/WorldHistory.asp>