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The ultimate education reform

By Marion Brady

We learn most of what we know by doing something while thinking about it—learn about cooking by cooking, learn about getting through airport security by going through airport security, learn about removing appendixes by removing appendixes.

No textbook ever printed, no lecture ever delivered, no computer program ever written, puts school subjects to more relevant use, more thoroughly engages every thought process, or more directly simulates creativity, than learning by doing while thinking about it.

In learning, place is important. Learning to cook is easier in kitchens than in garages. Learning airport procedures is easier in airports than in shopping malls. Learning to remove appendixes is easier in hospital operating rooms than in restaurants.

Yes, place makes a difference in the quality of learning. We’d do well, then, to pay closer attention to the places we create for teaching and learning—schools.

Think back to those you attended. Recall the buildings, the classrooms, the design and arrangement of classroom furniture. More often than not what you’ll remember are physical environments that had little or nothing to do with learning by doing. Typically, the buildings, classrooms, and furniture encouraged passivity—sitting still, facing front, maintaining eye contact with a teacher, listening, speaking either when spoken to or when given permission.

Traditional schooling assumes learner passivity. That’s what gets textbooks printed, talking heads videoed, “star” teachers recruited, virtual learning ballyhooed, tough-love charter schools populated, university lecture halls furnished with hundreds of podium-facing seats.

We say, “Experience is the best teacher,” then build schools that say we don’t believe it. Point out the inconsistency, and hear the rationalizations: “Learning by experience is too inefficient.” “Kids don’t need to reinvent the wheel.” “Trial and error take so much time it’s not possible to cover the material.” “Learning by doing should come later, after essential knowledge and skills have been learned.”

I'm not saying that new ideas can't be transferred intact from the mind of a lecturing teacher or textbook author to the minds of learners. I'm saying it rarely happens.

So I've a proposal. America has trillions invested in school buildings, their foundations deep underground, their shapes set in brick and reinforced concrete, networked with pipes, wires, and ducts, doors and windows permanently in place. Their designs encourage learner passivity, and there's neither the money nor the will to change them.

Can they be re-purposed to really educate?

Yes. And it won't cost a dime. Not a door knob, light switch, patch of carpet, or pencil sharpener needs to change.

Within homes, apartments, offices, stores, workshops, factories, on work sites, and so on, are complex social systems—groups of people sharing an aim and interacting because of that aim.

Within schools are people who sometimes interact, but they're not really a social system, primarily because they almost never share an aim other than wanting to be somewhere else.

But they *could* share an aim. And if they did, kids would be learning to do better what they're going to be doing for the rest of their lives—trying to make sense of experience. Every waking moment, consciously or unconsciously, they're sizing up the situations in which they find themselves and trying to figure out how to make the most or the best of them.

Schools are “situations.” They're real, vibrant slices of life. Their physical and social complexity model in miniature the world outside their walls, just do so on a smaller scale. Learners can measure them; compute their volumes; determine their locations, orientations, and methods of construction; reproduce their floor plans; trace their histories; study their climate control and communication systems; identify goods that enter and waste that exits; analyze their populations in dozens of different ways; explore parental and citizen attitudes toward them; investigate their funding; evaluate their decision-making procedures; bring their efficiencies and inefficiencies into the open; compare their claimed and actual aims.

Schools, in short, are comprehensive laboratories for the study of life. Every school subject worth teaching can be brought to bear in making sense of them, with enough raw material at hand for non-stop investigation at any level of sophistication, the task

made easier by their immediacy, easy accessibility, compactness, tangibility, transparency (in theory, at least), and by adult guidance.

And because school is unfailingly relevant (even for those who are utterly bored or who hate it), the emotions without which learning never happens are dependably close. Look kids in the eyes, give them a genuinely difficult task—ask them to help make their school do what it's supposed to do and what society desperately needs for it to do, *and mean what you say*—and they and their teachers will create dynamic learning communities that, finally, justify the school's cost.

Close schools, reopen them the next day as learning organizations, allow them to move beyond the pedestrian constraints imposed by standardized testing, and they'll revolutionize the social institution upon which so much of humankind's chance of survival depends.

Note: For those who see potential in learning by doing that requires complex thought, click here: <http://www.marionbrady.com/Connections-InvestigatingReality-ACourseofStudy.asp>.

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