
Précis

This book unites three strands of current educational discussion that have rarely been considered together:

First, that the students in our classrooms are changing—largely as a result of their outside-of-school experiences with technology—and are no longer satisfied with an education that doesn't immediately address the real world in which they live.

Second, that the “telling and testing” pedagogy we have, for the most part, been using in our schools has become less and less effective with today's students. A better pedagogy is needed, and the good news is that it's available and usable today.

Third, that the digital technology now coming, more or less rapidly, into our classrooms—if used properly—can help make our students' learning real, engaging, and useful for their future.

Ironically, it is the generation raised on the expectation of interactivity that is finally ripe for the skill-based and “doing-based” teaching methods that past experts have always suggested are the best for learning, but that were largely rejected by the education establishment as being too hard to implement.

The happy thread tying the three strands together is that the same digital technology which caused the changes in our students also provides the tools to finally implement the most effective, real ways of learning.

Introduction: Our Changing World

Technology and Global Society

Guiding Questions

1. Are today's students different? Are they attention deficient? What do they want?
2. How can we motivate and engage today's students?
3. Is there a better way to help today's students learn? How can we get there?

In the 21st century, so many of our old assumptions and strongly held ideas have been turned around—and so many more upheavals are on the way—that it is clearly a different place in which our kids are growing up. Two-thirds of the people on the planet have a cell phone. A new virtual (i.e., online) world has emerged out of the ether and become the focus of many of our kids' attention. Engineers are putting a trillion transistors on a single computer chip. Scientists are manipulating individual atoms to make nano-scale machines that we can't even see. The world's volume of information will soon be doubling every few hours. No longer do TV game shows put you in an isolation booth to prove no one is helping you; they encourage you to phone a friend or poll the audience.

It is inevitable, in such an environment, that change would finally come to our young peoples' education as well, and it has. But there is a huge paradox for educators: the place where the biggest educational changes have come is not our schools; it is everywhere else *but* our schools. The same young people who we see bored and resistant in our schools are often hard at work learning *afterschool* (a term I use to encompass informal learning through peers, the Internet, YouTube, television, games, cell phones, and lots of other emerging

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opportunities, as well as through organized programs such as FIRST Robotics). It is in the afterschool world, rather than in schools, that many of our kids are teaching themselves and each other all kinds of important and truly useful things about their real present and future. A host of powerful tools are available to them for this purpose, and those tools—and our kids through using them—are growing more and more powerful each day. After school, no one tells kids what to learn or do. They follow their interests and passions, often becoming quite expert in the process.

ATTENTION?

Despite what you may hear, or even observe, today's students don't have short attention spans or the inability to concentrate that they are often accused of having. Many of the same students who don't concentrate in school will sit for hours, for example, totally focused on movies or video games. So, it is not our students' attention capabilities that have changed, but rather their tolerance and needs. Today's young people must continuously choose among a plethora of very expensively produced demands on their attention—music, movies, commercials, TV, Internet, and more. They have learned to focus only on what interests them and on things that treat them as individuals rather than as part of a group or class (as we so often do in school). In an increasingly populated and crowded world, choice, differentiation, personalization, and individualization have become, for today's young people, not only a reality, but a necessity.

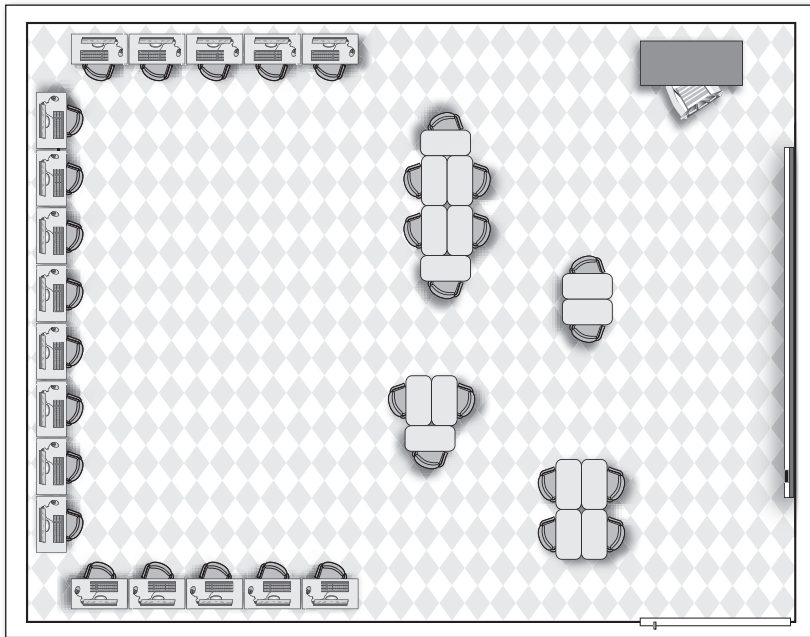
More and more young people are now deeply and permanently technologically enhanced, connected to their peers and the world in ways no generation has ever been before. Streams of information come at them 24/7. More and more of what they want and need is available in their pocket on demand. "If I lose my cell phone, I lose half my brain," comments one student.

Do such kids need school? More and more of them (almost a third nationally and half in the cities) think not, and drop out. But we adults, especially educators, know that this is a huge mistake—there is so much today's young people can and should learn from us. The problem is, though (again in the words of a student), "There's so much difference between how students think and how teachers think." Increasingly, we're failing to deliver what students need in the ways that they need it. What today's kids *do* have a short attention span for are our old ways of learning.

WHAT TODAY'S STUDENTS WANT

So what do these students want from school? Based on interviews of almost a thousand of today's students from all economic, social, intellectual, and age strata, all over the world, I have found that what they say is remarkably consistent:

- They do not want to be lectured to.
- They want to be respected, to be trusted, and to have their opinions valued and count.

Figure 2.5 Mixed Setup: A Variety of Configurations Throughout the Classroom

CHOOSING YOUR PARTNERING LEVEL

As with most things, there is no one-size-fits-all partnering that covers all students and all situations. Because in the United States we teach everyone, our districts and schools serve a wide variety of classes and students varying greatly in their abilities, preparation, motivation, home environment, and other factors. How can teachers best set up situations in which all of these students can partner, that is, teach themselves with our guidance?

To illustrate how partnering can be made to fit multiple situations, I will discuss three variations, or levels, of partnering: basic, guided, and advanced (problem, project, or case based). Basic partnering is what I suggest most teachers start with. Guided partnering is good for students that have particular trouble working on their own or performing certain tasks. Advanced partnering is for teachers and students who are ready to branch out from the textbook-ordered curriculum into longer and more complex learning projects.

Before I describe each of these partnering levels in detail, let me introduce two general principles that are true across all levels:

1. All aspects of partnering, from planning to doing to evaluating, must be done as much as possible with students as participants. Otherwise we're not partnering. Structures must be set up to do this, either via class discussions, student planning assistants, or both.

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Assessment in the Partnering Pedagogy

Guiding Questions

1. What are the roles of assessment, in general and in partnering?
2. What types of assessment are most useful for partnering students?
3. How can we assess the progress of all participants in the educational process?

As we look to assess our partnering students, let's begin by stepping back and thinking for a minute about what assessment is for. Most of the assessment we do these days is for sorting and comparing. That is, tests allow us to rank individuals, schools, and even countries by who is "ahead" and who is "behind." Almost all of it is based on average scores, across a class, social group, city, and so on.

This comparison is great for managers and politicians. They want to see averages rise. They want to see schools that had ranked lower rank higher. They want to see adequate yearly progress. It is also great for admissions officers, whether we are talking about admission to college, the military, or jobs. In fact, standardized testing started in the military in World War I.

But does any of this really help individual students? In my judgment it does not—at least not directly. What an individual student is (or should be) interested in is not whether his or her class is improving, or even whether he or she has moved up or down