

Motivated to Learn: A Conversation with Daniel Pink

By Amy M. Azzam

If schools truly want to engage students, they need to downgrade control and compliance—and upgrade autonomy.

Daniel Pink, author of Drive (Riverhead, 2009) and A Whole New Mind (Riverhead, 2006), has looked at four decades of scientific research on human motivation and found a mismatch between what science tells us and what organizations actually do. In this interview with Educational Leadership, Pink shares his insights on how schools can create more optimal conditions for learning—and how they can dial up students' own motivation to learn.

People often rely on external rewards to get kids to do something—a school rewards a class if the students score proficient on a test; a parent rewards a child if the child gets all As. What's your take on this?

My take is what 50 years of behavioral science tell us. There are certain kinds of motivators, what I call "if-then" motivators, as in "If you do this, *then* you get that." Those motivators, science tells us, are pretty effective for simple, short-term, algorithmic tasks. But if-then rewards are far less effective for more complex, creative tasks.

The problem we have in schools and organizations is that we tend to use those if-then rewards for *everything* rather than for the areas in which they work. Trouble is, in both the workforce and education, people now rely less on these routine kinds of skills and more on work that requires greater judgment, creativity, and discernment. In many ways, how we motivate people hasn't caught up to the reality of our times.

Now, let's be clear. We all love rewards. If you dangle a prize in front of people, it gets their attention, but—and here's the important point—it gets their attention in a narrow way. That's OK for certain things—for example, if you're stuffing envelopes or turning the same screw the same way on an assembly line. Rewards for things like that can actually improve performance. But if people have a completely narrow view of a task that requires more creativity or judgment—designing a new piece of software, inventing a product the world doesn't know it's missing, and so on—then they're not going to do as well.

What's more, this carrot-and-stick approach confuses two types of goals. Research by Carol Dweck and others has shown that there's a difference between learning goals and performance goals. A learning goal is, "I want to master algebra." A performance goal is, "I want to get an A in algebra." The research shows that reaching performance goals doesn't necessarily mean that you have hit a learning goal. If people are single-mindedly focused on performance goals—and they achieve them—it doesn't mean they've learned anything, improved their capabilities, or mastered something complex. The kid is less likely to retain what she learned to get the A, less likely to persist when the going gets tough, and less likely to understand why algebra is important in the first place.

However, if a kid is single-mindedly focused on a learning goal—mastering algebra—chances are he's going to do pretty well. In the process, he'll probably attain that performance goal and get his A. So it's best to simply go for the learning goal and use the grades and scores as feedback as the student works toward mastery.

In your book *Drive*, you wrote, "While complying can be an effective strategy for physical survival, it's a lousy one for personal fulfillment." Nevertheless, people spend a lot of time complying in school. What needs to change?

There's a huge difference between compliant behavior and engaged behavior. With compliant behavior, you're doing what someone told you to do the way they told you to do it. There's nothing wrong with that, but it's different from engagement. With engagement, you're doing something because *you* truly want to do it, because you see the virtues of doing it.

Now most good teachers don't want compliant students—they want engaged students. It's more fun to teach engaged students; it's kind of dreary to teach compliant ones. Human beings, whether they're 6-year-olds in a 1st grade classroom or 46-year-olds in a corporate boardroom, don't engage by being managed or controlled. We engage by getting someplace under our own steam.

So if we really want engagement rather than compliance, we have to increase the degree of autonomy that people have over what they do; over how, when, and where they do it; and over whom they do it with.

Students don't have a lot of autonomy in school—but neither do their teachers. Many trends in federal policy, especially over the last decade, have focused on constraining teacher autonomy. Now when I say that autonomy leads to engagement, it doesn't mean that you have to turn the autonomy dial up to 10 in every circumstance. If you really want to get people engaged, you have to find ways to increase autonomy *the right amount at the right moment*.

Now what does this mean in practice? It means not having a system that requires that every 3rd grade teacher everywhere in the country on the second day of March is teaching the exact same thing in the exact same way. That's a disaster.

What it means in terms of students is giving them some discretion over what they study, which projects they do, what they read, or when or how they do their work—just upping the autonomy a bit. We're not talking about a wild and wooly free-for-all where everyone does whatever they want whenever they want to do it.

What I *am* suggesting is that our default assumption, for both students and teachers, should be this: Let's trust people with autonomy instead of assuming they can't handle it. But here's the challenge: At some level, compliance is a lot easier for the people at the very top of an education system. It's a lot more convenient if you have compliant teachers and compliant students. And management is all about getting compliance. Even if you sand off the rough edges and oil the gears, the technology of management is still designed to produce compliance.

We need something different—something beyond management, whatever the next iteration is. We need leaders, both in organizations and in schools, who create an atmosphere in which people have a sufficient degree of freedom; can move toward mastery on something that matters; and know *why* they're doing something, not just how to do it.

And this leads to another challenge, an uncomfortable question for legislators, governors, and presidents: Are our education policies designed for the convenience of adults or for the education of our children? Take high-stakes testing—it's easy, it's cheap, and you get

a number, which makes it really convenient for adults, whether they're taxpayers or policymakers. But is heavy reliance on punitive standardized tests the best way to educate our children? Probably not. Doing what we truly need to do for our kids is going to end up being pretty inconvenient for a lot of adults. But to my mind, it's the only way to go.

Some organizations use what you call Goldilocks tasks to increase their employees' opportunities for mastery. How does this work?

Goldilocks tasks are ones that are not too difficult and not too easy. If a task is too easy, people—whether they're children or adults—will get bored. If it's too hard, they'll get anxious or frustrated. You want that sweet spot, where something is within our range of challenge—not too easy, not too hard, but just challenging enough that we're engaged and being pushed to a slightly higher level. Those moments are some of the most optimal experiences in human existence—what Mihaly Csikszentmihalyi called *flow*. In flow moments, we lose a sense of ourselves, we're in the moment, and we're deeply engaged.

We need to create more of those moments in school. If you're doing something easy, you're never going to improve; if you're doing something too hard, you're not going to succeed, so you won't improve that way either. But if you have a Goldilocks task, you're much more likely to move toward greater mastery.

The problem is, the degree of standardization in school works against Goldilocks tasks. What's going to be a Goldilocks task for me isn't going to be a Goldilocks task for you. What's more, I may need a more challenging Goldilocks task in algebra than in Spanish. Standardization is an extremely blunt instrument: The work is going to be too easy for some people, too hard for others, and a Goldilocks task for only a few.

The whole world is awash in customization—until we get to the schoolhouse door. That cuts against what social scientists know about how human beings learn and improve. Now I understand that differentiation is difficult to do. But let me give you a heartening example. One of my daughters had a math teacher who gave different homework to his students. The homework wasn't so fully customized that Fred had something totally different from Maria, who had something totally different from Eduardo. The teacher simply understood that the kids had different levels of understanding, so they needed different work. There was almost never one single homework assignment for everyone. I think that's the way to go. The question is, are we willing to devote the resources to that? Teachers would probably need to have smaller class sizes, which is more expensive. They'd need more time to develop not only lesson plans but also some degree of customization, and that requires time and resources, too.

Few people would disagree that we need a greater level of customization in curriculum and learning. But we run into that problem again—it's inconvenient for adults! It requires more work and more money. So we come back to that question again: Are we creating education policies that are actually good for kids—or simply convenient for adults?

You write about the importance of building mastery—and that one way of doing this involves turning work into play. How can organizations do this in a more substantial way than just reducing a task to a bunch of "fun" activities?

Take math. It can be fun if you're dealing with a Goldilocks task. Your teacher is guiding you through, and you're getting sufficient feedback. That's what I mean by fun and play—we're actually talking about flow and engagement.

The trouble with the word *play* is that it seems to connote a lack of rigor. We want things to be rigorous, certainly, in our education system. But it's possible for things that seem, on the surface, to be play to be absolutely rigorous. No one would think that a basketball team that's practicing to improve or an orchestra that's playing music isn't doing something rigorous.

Take the work of scientists. Research shows us that a lot of discoveries were made when people had more playful mind-sets. In 2010, a pair of scientists won the Nobel Prize in physics for isolating a material called graphene, the thinnest, strongest, most conductive material in existence. They did this work during what they called "Friday evening experiments," a regularly scheduled two or three hours apart from their regular work hours when they just tested out stuff they thought was cool. They ended up making one of the greatest breakthroughs in material science in the last 50 years, basically during a physicists' recess.

We need to take more of this into our classrooms. It's less loosey-goosey than it seems. Rigor and playfulness pair much more smoothly than we think they do—and that pairing can have some pretty spectacular results.

You note that satisfaction with one's work often depends on hitching one's desires to a cause larger than oneself. What might this look like in school?

Let's look at this from the point of view of teachers and then from the point of view of students. Most teachers go into this profession not because they want to make a pile of money, but out of a sense of purpose. But once they're in the profession, they often don't talk much about it.

Teachers need to bring that sense of purpose to the surface. They should talk more about why they went into teaching, why it matters, why they're making this contribution to the world. This idea of purpose as motivator is not a touchy-feely sentiment. A pile of evidence during the last 10 years shows that it can be a real performance enhancer.

As for students, research has shown that people do better at a task—whether that task is spelling, hitting a curve ball, or playing the viola—if they know *why* they're doing it in the first place. School is often all about *how*—here's how you do a quadratic equation, here's how you write a five-paragraph essay, here's how you do a paper chromatography experiment in chemistry.

The fact is, we often give short shrift to why. Why are we doing this in the first place? Why does it matter that we solve quadratic equations? The simplest, most effective performance-enhancing tip for any organization is for the people in charge, whether they're teachers or principals or corporate managers, to have two fewer conversations in a given week about *how* to do something and two more conversations about *why* they're doing it. Of all the steps we've been discussing, this is one of the easiest things we can do.

Responding to the "why" question is especially important for kids. When kids ask, "Why are we doing this?" we often dismiss it as an annoying question when, in fact, it's a pretty darn good one. And we need to be able to answer it—not to placate the kids, but because there's a rich body of evidence showing that when people know why they're doing something, they do it better.

And I don't mean a weak why, like "because it's on the test." Teachers can most likely come up with a good reason why a student needs to learn something. And if they can't, then it really raises the question, should you be teaching it in the first place?

Let's say a kid is studying statistics and probability, and she asks, "But why do I need to know this?" You could say, "Maybe you'll grow up to be an investor—or at least, you may decide to invest your own money in things—and if that's the case, you'll need to know this." And maybe the kid will balk and say she's not interested in that. Come back with something else. You might say, "You know, in order to make sense of your own life as a citizen, you need to understand something about statistics and probability. For example, when politicians use statistics, you'll need to be able to assess whether they're trying to deceive you or enlighten you." No matter the profession, kids are going to need to be proficient at analyzing things. Teachers are a case in point—to make sense of test scores these days, you need some notion of statistics and probability.

When my older daughter first started doing homework, she would ask me why she had to do it. I remember saying, "Oh, just be quiet and do it." So what I'd like to see is something I haven't done enough of. I'd like for kids to hold adults' feet to the fire and insist they explain, "*Why* are we doing this stuff?"

In your book *To Sell Is Human*, you suggest an intriguing technique for tapping into people's inner drive to do something that, on the surface, they don't seem to want to do. Can you explain how this works?

It's called *motivational interviewing*, and it comes from the therapeutic world. Mike Pantalon from Yale came up with an enormously effective two-question technique. Let's say a student isn't doing his algebra homework—not because he's bored or because it's too difficult for him, but simply because he doesn't feel like doing it. As a result, he's not mastering algebra. You could say, "Daniel, on a scale of 1 to 10, how ready are you to do your algebra homework?" He might say, "Well, I'm a 2." Our instinct is to respond, "Hey, what's wrong with you?! Come on, you should be a 9!" Instead, the follow-up question in this technique is, "So Daniel, you said you're a 2. Why didn't you choose a *lower* number?"

That question always throws them. Daniel has to explain—maybe for the first time in his life—why he's not a 1. He might say, "Well, I know that in the long run, if I don't get this down now, I'm going to be in big trouble in math. Also, although I'm not sure what I want to do later on, I've thought about going into engineering or medicine, and maybe if I don't master math, I won't be able to do that." Daniel begins to articulate his own reasons—not yours or mine or the teacher's—for doing something. When people have their own reasons for doing something, they believe the reasons more deeply and adhere to the behavior more strongly.

And that's what we want to draw out. The only way Daniel is going to be engaged rather than compliant is if he has some degree of say. This questioning style—rather than the hectoring, demanding, commanding style we often default to—can be very effective.

Now here's the thread that connects all these questions. As parents, as teachers, as entire organizations, our instinct is toward greater control. We think control is going to make something better. But people have only two reactions to control: They comply, or they defy. We don't want defiant kids, but we also don't want compliant kids. We want kids who are engaged. If you truly want to engage kids, you have to pull back on control and create the conditions in which they can tap their own inner motivations.

Source; <http://www.ascd.org/publications/educational-leadership/sept14/vol72/num01/Motivated-to-Learn@-A-Conversation-with-Daniel-Pink.aspx>