

FEATURE

Innovation Strategies for Public Education

by Thomas Arnett

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Innovative education needs to emerge in settings that are buffered from the practices and expectations of conventional education.

Innovation Strategies for Public Education

Disruptive Innovation Research Shows the Way

Thomas Arnett



Photo credit: Modern Classrooms Project

District administrators today find themselves stretched between competing demands that will impact not only their current students but also generations of students to come.

On one hand, there's a common sentiment that the Covid-19 pandemic should mark a pivot point for K-12 education. The pandemic exposed the shortcomings of conventional models of schooling that depend on whole-class, live, single-paced instruction. It also prompted unprecedented investments in digital learning technologies and professional development that shouldn't go to waste. On the other hand, after two tumultuous school years, there's a strong common desire to just reestablish normalcy. Many educators feel overwhelmed by lost learning time, staff shortages, and the tenuous social and emotional wellbeing of students.

How should leaders handle the competing pressures to both get back to the way things were before the pandemic and rethink schooling for a post-pandemic future? Fortunately, innovation research points toward how to have it both ways.

Why is change hard?

In the 1990s, Harvard Business School Professor Clayton M. Christensen revolutionized the world of organizational strategy when he introduced the Theory of Disruptive Innovation.¹ The theory explained how new entrants to a field—such as Apple and Toyota—were able to upend much larger and better resourced incumbents such as Digital Equipment Corporation and General Motors by seizing opportunities that incumbent organizations were unable to prioritize. The Theory of Disruptive Innovation

Thomas Arnett, contributing writer to *District Management Journal*, is a senior research fellow for the Clayton Christensen Institute, where he focuses on applying the Theory of Disruptive Innovation and the Jobs to Be Done Theory to the K-12 education system.

revealed how incumbents in every field struggle to prioritize innovations that don't align with the practices and priorities ingrained in their established organizational models. Christensen referred to this inability to change as the "innovator's dilemma."

In K-12 education, school districts are mostly immune to the phenomenon of disruptive innovation because public education does not operate under the same market dynamics as other sectors. Nonetheless, school districts face the same innovator's dilemmas as incumbent organizations in other fields, which keep them from transforming their longstanding practices. Fortunately, disruptive innovation research also offers insight on how established organizations can effectively disrupt themselves.

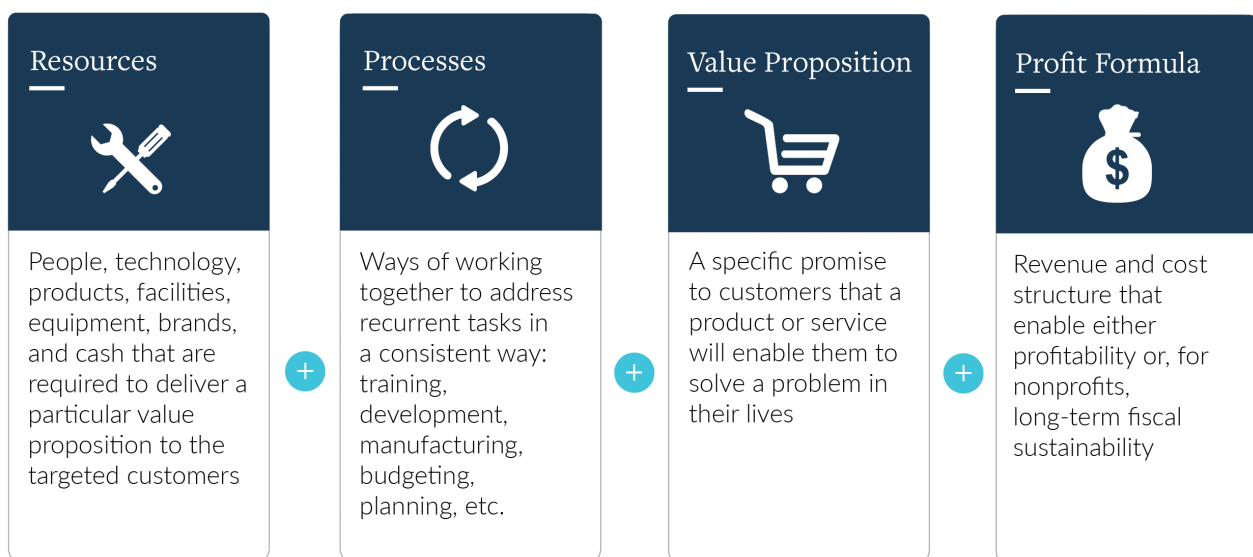
A district, like any organization, has an organizational model that determines the activities it is presently capable of carrying out. The model is made up of its resources (e.g., staff, materials, and facilities), the processes it uses to carry out its work (e.g., scheduling, curriculum planning, lesson planning, professional development), and its value propositions (e.g., the things of value it offers to its community, such as classroom-based learning experiences, extracurricular learning opportunities, a sense of belonging to school communities, custodial care, and credentials). An organizational model also includes a financial formula: sources of revenue that must cover the costs of the resources and processes used to deliver the value propositions (*Exhibit 1*).²

Why is it hard to transform a school system? Part of the answer is that school systems are victims of their histories. If you step back and look at any well-established organization, its structures reflect its story of survival and success. Every policy, practice, and hierarchy emerged to solve a problem. Solutions that worked were repeated, improved, and interwoven. Ideas that failed were pruned away. And thus, organizations such as school districts develop natural tendencies to pursue innovations that build on established practices and resist changes that drastically alter their well-worn blueprints for success. Organizational models are generally stable over time because resources and practices that work get refined and repeated.

Nonetheless, organizational models can and do change as new challenges and opportunities arise. Resources can be purchased and sold, staff can be hired or let go, teams and departments can be reorganized, and people can learn new ways of doing their work. But what determines whether change actually happens? The motivation to change must come from the balance of forces within a district's value network.

A *value network* consists of all the stakeholders in an organization's ecosystem whose influences shape its priorities. For a school district, these include staff and students, families and community groups, employee unions, and government agencies. They can also include

Exhibit 1 ORGANIZATIONAL MODEL FRAMEWORK



Source: Christensen Institute.

vendors, institutions of higher education, philanthropic foundations, and local businesses. The value networks of schools and districts pull them in many competing directions, which means leaders must engage regularly in politics and persuasion to ensure that this wide range of stakeholders is satisfied with how schools deliver on their promises.

Changing the way districts and schools operate after Covid-19 will require making alterations to their organizational models. But changing an organizational model proves difficult when the current model sits within a value network that still expects it to deliver on preceding expectations. There may be talk at present about how districts and schools should be more innovative or focused on whole-child development. Nonetheless, states still fund districts based on enrollment, and expect them to offer instructional minutes in certain content areas and to produce acceptable outcomes on standardized tests. Most families still want schools to provide custodial care from 7:00 AM to 3:00 PM, to deliver classroom-based instruction in traditional content areas, and to offer sports, arts, clubs, and other enrichment activities. Teachers are still most comfortable using the practices they've honed over years of experience. And after two tumultuous years, many stakeholders long for a return to stability that would be threatened by any major change initiatives.

The art of leadership involves rallying stakeholders around a shared vision for change and then coordinating and empowering them to figure out what changes in resources and processes will realize that vision. But that vision has to start with areas of common interest, and for even the most adept leaders, some changes are just too far afield from the dominant interests of their value network to be feasible.

An alternative to change management and school reform

So how can district leaders reinvent schooling when their value networks don't give them the alignment they need around that goal? Rather than wrestling with an existing value network to renovate an established

organizational model, find a way to step outside of it to invent new models.

Based on his research, Christensen concluded that when disruptive change appears on the horizon, managers need to assemble the capabilities to confront that change before it affects the mainstream business. They actually need to run two businesses in tandem—one whose processes are tuned to the existing business model and another that is geared toward the new model. He found noteworthy examples where companies such as IBM, HP, and Charles Schwab were able to sidestep the innovator's dilemma and disrupt themselves by setting up what he called "autonomous organizations." These were new subsidiary organizations that had the ability to build new organizational models from the ground up, independent from the pressures of their parent organizations' value networks.³



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Below are two pathways illustrating what this can look like for schools.

Option 1: Empower teachers who are dissatisfied with the status quo to try new approaches

Although many teachers are eager to get back to what worked for them pre-pandemic, there's a subset of teachers in most school districts who are eager to reinvent their instruction. These teachers are often motivated by a combination of experiences during the pandemic: (1) They realized that the conventional, single-paced, teacher-led instructional model is a longstanding design flaw in meeting students' individual learning needs; (2) They discovered new tools or practices during the pandemic for personalizing student learning—such as flipping their classrooms—that they want to continue post-pandemic.⁴

For example, the pandemic prompted many teachers to discover ways to streamline their work using learning management systems, online quizzes, and tools for creating



Photo credit: Modern Classrooms Project

online lessons. When the pandemic closed buildings and necessitated quarantines, some teachers adapted by posting their lesson materials or recordings of their lessons online. Then, with their content covered through online resources, these teachers could spend their face-to-face time with students checking in, answering questions, and supporting students' individual learning needs.⁵

Interestingly, although individual teachers work within their school's existing organizational models and value networks, longstanding professional traditions also give them a buffer from those influences. Once the school bell rings and classroom doors shut, teachers typically have broad discretion to run their classrooms as they see fit. Teachers can therefore take advantage of these norms to resist the pressures of their schools' organizational models and value networks to incubate new models of education. Thus, administrators can encourage grassroots innovation merely by supporting forward-thinking teachers who are already experimenting with new practices in their classrooms.

The Modern Classrooms Project offers a great example of this approach. The nonprofit was started a few years before the pandemic by two high school teachers in District of Columbia Public Schools who found whole-class, single-

paced instruction didn't work for students with inconsistent attendance. Prompted by this realization, they developed a new model for classroom instruction that was blended, mastery-based, and self-paced. Once they refined and codified their model, they started sharing it with other colleagues in their building. That effort then led to their founding the Modern Classrooms Project, a nonprofit vehicle for sharing their model with teachers around the world.⁶

In the Modern Classrooms model, teachers replace lectures with short teacher-created instructional videos. Because students can move through the online videos and associated assignments and assessments at their own pace, teachers shift to grading students based on their mastery of content and skills and allow students to resubmit assignments and retake assessments until they reach mastery. With the bulk of content coverage coming from online materials, teachers can spend their class time working closely with individual students and ensuring that each student is making progress in their learning.

Today, Modern Classrooms is working with over 100 school districts to train more than 3,000 teachers on how to implement blended, mastery-based, self-paced instruction. In addition, more than 40,000 educators have accessed its free online course. Importantly, the

nonprofit doesn't offer school-wide professional development. Instead, it works only with those teachers in a district who are interested in opting into the Modern Classrooms model. The model then scales by word of mouth as teachers share their successes with their colleagues.

Option 2: Create new schools with their own value networks

Although individual teachers can do a lot with the autonomy they exercise within their classrooms, there are some aspects of the conventional model of schooling that lie outside their ability to redesign on their own—such as changing course offerings, the organization of learning into conventional subjects, the school-wide grading system, the school schedule, or learning experiences outside of school. To disrupt these broader structures of conventional schooling, consider creating new schools or programs that develop their own unique value networks that can prioritize new approaches to education.

One way to set up these programs is as microschools within existing schools. Microschools are small schools that can range in size from 10 to 100 students. Their size gives them nimbleness to explore innovative approaches such as mastery-based learning, mixed-age classes, individualized learning plans and pathways, project-based learning, and learning experiences outside of the classroom. Their administrative autonomy from the conventional schools with which they share facilities gives them the ability to attract their own set of stakeholders aligned with their vision.

The Kettle Moraine School District in Wisconsin offers one of the best examples of developing innovative education using microschools. In 2005, with a charge from the school board to transform education to meet the needs of all students, Superintendent Patricia Deklotz decided to set up two instrumentality charter schools within the district's comprehensive high school. As instrumentality charter schools—a specific designation under Wisconsin state education policy—the schools would be funded by the district and their staff would be employees of the district, but each school would have its own governance council to oversee the management of the school and make policy decisions. As Superintendent Deklotz explained, “We knew we wanted to play with ideas like seat time and place of learning, that we wanted to make the learning more relevant than what we were seeing in the classrooms and wanted student engagement to be at a much higher level. ... In order to

have those permissions, we needed to waive those expectations or standards that the state had put forward [for conventional schools].”⁷

Another way to create new organizational models with innovative value networks is by creating new schools that operate independently from a district's conventional schools. These might be alternative schools that are designed with the flexibility and personalized pathways to support students who have been unsuccessful in conventional school settings. They might be virtual schools that operate brick-and-mortar student support sites to give students a more flexible and individualized learning experience. Or they might be programs that focus on technical training and early college experiences.

In the Salt Lake City School District (UT), Kenneth Grover created such a program when his district decided to build a new career and technical education (CTE) center on a site adjoining a community college campus. Grover, the district's director of secondary education, saw both the need across the district to create more student-centered learning opportunities and the challenges of trying to build those opportunities from within the organizational models and value networks of the district's comprehensive high schools. So when the district decided to create its new CTE center, Grover seized the opportunity to develop a different kind of school and shifted roles to become the principal of the new center.

When the center, called Innovations Early College High School, opened in 2012, its personalized approach diverged markedly from the common practices in comprehensive high schools. It had no bell schedules and no lectures. Instead, it leveraged blended learning, mastery-based progression, career and technical coursework, dual-enrollment options, and high doses of student mentorship to meet the needs of its students. Students were not assigned to attend Innovations Early College High School; instead, students from across the district opted to enroll because it addressed their particular learning needs.

Keys to success

Programs like Kettle Moraine's microschools and Innovations Early College High School need to be able to form their organizational models in their own independent value networks. This means all of their influential stakeholders are aligned on a vision of education that is distinct from conventional schooling. In other words, their stakeholders can't expect these schools to offer all the trappings of

conventional schooling with some innovative features as add-ons. Rather, they need to be willing to forgo aspects of conventional schooling—such as conventional bell schedules, teacher-led instruction, A-F grades, AP courses, and extracurriculars—so that they can instead create a qualitatively different experience.

When an organization's value network constrains its ability to change its organizational model, the answer is not to push harder for organizational model change. This would amount to the insanity of continuing to do the same thing but expecting different results. Overcoming the constraints of an established value network requires bringing together a new value network where a new organizational model can take form.

1. Administrative autonomy and support

New innovative schools need to start forming their new value networks by first gaining administrative autonomy from their parent organization. If sponsored by a school district, they should not be expected to follow the same policies and procedures or interface with the same administrative offices as conventional schools. They should be given freedom to set their own calendars and schedules, make their own curriculum and staffing choices, and negotiate performance and accountability expectations unique to the vision of education they aim to deliver.

At the same time, innovative programs sponsored by existing school systems need the leaders of their sponsoring entity to provide strong support for their vision. Many districts already have alternative schools, virtual schools, credit-recovery centers, or CTE programs that could become the seedbeds for innovation. But most of these programs never become exceptional models because district leaders don't see their potential beyond serving niche student needs or interests.

Senior district leaders need to hire program leaders who have a strong vision for innovative education that could one day better meet the needs of all students, and then get out of the way as those school leaders develop the resources and processes to deliver innovative experiences for students. But all too often, district leaders instead pick school leaders who are just looking to fulfill a perfunctory role. And district leaders are often so focused on their work with their conventional schools that they spend little time and energy supporting and encouraging the innovation efforts of these niche nonconventional programs. Thus, the programs start off as low-quality stopgaps and never improve.

2. Different students

As innovative programs establish and codify their organizational models, they initially need to serve different student subgroups from those served by conventional schools. This is important so that innovative programs don't end up gravitating to conventional practices to appease stakeholders who just want a better version of conventional education.

One cornerstone subgroup is what the Theory of Disruptive Innovation terms "nonconsumers." In K-12 education, these are students who have dropped out of conventional schools because conventional education didn't work for them. These might be students who can't consistently attend conventional classes due to major health challenges, housing insecurity, or the demands of maintaining a job to support a family. Alternatively, they might be students who struggle to function in conventional settings due to anxiety, depression, bullying, dyslexia, ADHD, autism, or other learning differences.

Another cornerstone subgroup is what the theory refers to as "least-demanding consumers." In K-12 education, these are students and families who are willing to forgo conventional education to get a different type of learning experience. They will do without schooling mainstays—such as college-prep courses, team sports, band, theater, clubs, school dances, and all-day custodial supervision—to instead have a schooling option that can better address their needs and interests. For example, these might be families that want a flexible daily schedule that can accommodate athletic training, professional acting, music production, internships, entrepreneurship, travel, community advocacy, technical trades, or other passion projects. They might also be students who are interested in moving through required courses and content at a faster pace than that offered by conventional schools so that they can graduate early to start a career or attend college. They could also be students who want an education that focuses more on project-based learning or community-based learning rather than classroom-based academic instruction. Importantly, students and families in this subgroup want innovative value propositions *instead* of conventional schooling, not in addition to it.

3. Different staff

A school's staff are often the most important resource the school uses to deliver its value proposition. But staff are more than just resources. They bring with them prior experiences that guide their decisions about which

processes should be used to design and implement a school's organizational model. They also constitute a major stakeholder group within a school's value network and as such have significant influence over how a school should operate.

Given this reality, innovative schools need to be deliberate in attracting and retaining staff whose experiences and priorities align with the school's vision. If staff come from conventional education backgrounds, they need to be people whose experiences in conventional education have brought them to a place where they are dissatisfied with conventional schooling and deeply committed to the school's vision for innovative education. Many innovative programs also employ a substantial proportion of staff who are counselors, tutors, psychologists, community liaisons, or local industry experts. Rather than mirror the staffing roles and ratios of conventional schools, innovative schools need to hire staff with backgrounds aligned to the needs of their programs and with philosophical alignment to their educational approaches.

4. Different funding and accountability expectations

Innovative programs also need as much as possible to find revenue sources that align with their unique value propositions, resources, and processes. Public funding can be a challenge on this front, as it is often based on metrics such as attendance rather than student engagement in learning or mastery of learning objectives. Attendance-based funding makes schools focus on having students in school buildings to receive minutes of direct instruction and curtails their ability to serve students who might struggle to attend on a consistent basis or to provide students with community-based learning outside of the school building.

Public schools are also typically required to comply with state and federal regulations that constrain their organizational models. Regulations created for public schools are intended to ensure quality and accountability. Unfortunately, they often define quality based on the inputs to conventional schooling—such as instructional days and minutes, class sizes, and use of course-based materials—rather than the outcomes a school or program is able to produce—such as engaging at-risk students or ensuring that all students are on a trajectory to post-secondary success.

How can innovative public education programs circumvent funding and accountability constraints? Schools and programs like those described above often operate under special state policy designations that afford them some flexibility. For example, they might be categorized as charter schools, alternative schools, CTE centers, independent-study programs, or virtual schools, and as such have waivers from some policy mandates. In other cases, they might apply to be part of innovation zones or pilot programs that let them negotiate new funding and accountability arrangements with their state regulators.

Conclusion

Seizing this moment to make education more innovative is possible, but it's not likely to happen by adding more work to the plates of educators already managing conventional schools. Instead, innovative education needs to emerge in settings that are buffered from the practices and expectations of conventional education. The specific steps for developing such programs—the what and how of innovative education—go beyond the scope of this article. But the insights above, drawn from decades of research on the phenomenon of disruptive innovation, are key to setting up the enabling conditions that are crucial for success. ♦

NOTES

¹ See Joseph L. Bower and Clayton M. Christensen, "Disruptive Technologies: Catching the Wave," *Harvard Business Review*, January-February 1995, <https://hbr.org/1995/01/disruptive-technologies-catching-the-wave>.

² This framework comes from Clayton Christensen's research on organizational models. See Clayton M. Christensen and Michael Overdorf, "Meeting the Challenge of Disruptive Change," *Harvard Business Review*, March-April 2000, <https://hbr.org/2000/03/meeting-the-challenge-of-disruptive-change>.

³ See chapter 7 of Clayton M. Christensen and Michael E. Raynor, *The Innovator's Solution: Creating and Sustaining Successful Growth* (Boston: Harvard Business School Press, 2003).

⁴ For additional insights on the circumstances that motivate teachers to change their instructional practices, see Thomas Arnett, "The Teacher's Quest for Progress: How School Leaders Can Motivate Instructional Innovation," Christensen Institute, September 12, 2018, <https://www.christenseninstitute.org/publications/teachers-jobs-to-be-done/>.

⁵ See Thomas Arnett, "Carpe Diem: Convert Pandemic Struggles into Student-Centered Learning," Christensen Institute, August 31, 2021, <https://www.christenseninstitute.org/publications/blended-learning-2021/>; see also Elizabeth Heubeck, "'Flipped Classes' After the Pandemic: Why These Teachers Say They'll Never Go Back," *Education Week*, March 22, 2022, <https://www.edweek.org/teaching-learning/flipped-classes-after-the-pandemic-why-these-teachers-say-theyll-never-go-back/2022/03>.

⁶ To learn more about the Modern Classrooms Project and access its free online course on how to implement the Modern Classrooms model, see <https://modernclassrooms.org/>.

⁷ "Patricia Deklotz on High School Transformation," *Getting Smart* podcast, February 12, 2020, <https://www.gettingsmart.com/podcast/podcast-patricia-deklotz-on-high-school-transformation/>.