International Center for Leadership in Education

RIGOROUS LEARNING FOR ALL STUDENTS

INNOVATING FOR IMPACT

WHITEPAPER SERIES

Preparing Our Students for Their Futures:
HOW We Change and Innovate Instruction, Part I

PAPER FOUR

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This paper is the fourth in our five-part series on effective innovation, the kind of innovation that moves everyone in education—from administrators to students to the community—out of the twentieth-century paradigm of a focus on teaching to a focus on learning. Innovation that empowers every last person in the system. Innovation that helps us break free from the regulatory rigidness that has been holding us back from real change for decades.

In the first installment of this series, *Innovation: The Key to the Nation's Most Rapidly Improving Schools*, I outlined nine interrelated areas that must evolve to make room for future-focused innovation in our districts and schools:

In the second installment of this series, *Preparing Our Students for Their Futures: WHY Innovative Practices are Needed*, I explained why the need to innovate in our schools is so urgent. Technology is transforming our world and changing the career landscape. The businesses that are successful in the twenty-first century are those that let technology transform them. The people who thrive in these companies are lifelong learners—adaptable and capable of developing new skills when technology changes their job description. Similarly, schools must let technology transform them, so that they can mirror the environments that students will encounter as they set out to build self-sufficient, successful careers.

In the third installment, *Preparing Our Students for Their Futures: WHAT Needs to Change for Innovative Instruction*, I detailed what needs to be innovated so that our schools become centers of future-focused learning: 1) instructional practices, 2) how we organize instruction, and 3) what we teach. What sets apart the nation's most rapidly improving schools is, relatively speaking, how little attention they give to determining what they teach. To them, how students learn and how they learn to apply information is far more important. These innovative schools ask themselves first which instructional practices will connect with today's digitally savvy students. They ask which instructional organization structures will best mirror the real, technology-driven, and rapidly changing working world. And only then do they move onto what students learn. Grooming sophisticated, lifelong learners who can take action with knowledge is what matters most to the nation's most innovative and rapidly improving schools.

How to change, that is the question. In a word: **culture**.

In a few more words: **a culture that focuses on both the need to change and empowerment.** If we want our teams to transform our schools into future-focused centers of learning and doing, they must feel empowered.

Empowerment pulls people out of passive participation and gives them the confidence to be proactive agents of change. Change does not happen to us. It doesn't happen for us. And it doesn't happen without us. It only happens through us. We, as educators—people who want lifelong success for every last student who passes through our schools—

must make change happen. We must be the difference—between schools stuck in the past and schools innovating for life in this century.

Innovative change by definition requires some experimentation. It must leave room for trial and error. And it cannot exist without some outside of the box thinking. By empowering our teams, we're permitting them to take calculated, strategic risks knowing they have leadership's support.

With this in mind, as we tackle the nuts and bolts of how to change, we'll follow the lead of rapidly improving schools. In this paper, we'll start with how to change instructional practices, and then move onto instructional organization. As the innovators do, we'll save what to teach for the next and final paper in this series.

As noted earlier, our schools must mirror the real world—in this century. They must integrate technology in a way that reflects its use in the world beyond school. They must focus on teaching students how to take action with knowledge, not merely memorize it, and in unpredictable situations. And they must cultivate a love of learning so that students will want to be lifelong learners.

When innovative schools make changes in their instructional practices, organization, and content, they vet each decision against the future-focused environment they want to create in order to prepare students for their futures.

Innovating Instructional Practices

The nation's most rapidly improving schools are innovating their instructional practices with five key, future-focused shifts toward:

1. *Open educational resources.* In addition to excellent and leading-edge textbooks and teaching resources, innovative teachers are also using open educational resources (OER). At their core, OER are an opportunity for educators to share their best lessons and instructional ideas with each other. Innovative educators use OER to find lessons, projects, and strategies that are engaging to their students.

2. *Digital textbooks.* The most innovative schools have embraced digital textbooks. Why? Because they understand that if their school is going to make lifelong learners out of their students, they have to make it engaging. Today's students are always on their mobile devices — until they step foot on campus. At future-focused schools, mobile technologies are integral to learning because innovative educators know that students—as well as a good amount of teachers—are most comfortable working in digital formats.

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3. *Augmented reality.* Did your students get caught up in the Pokémon Go craze? If you haven't tried it, I suggest you do. In a simplistic (and non-educational) way, Pokémon Go is an example of augmented reality, which layers virtual reality over actual reality. The point of Pokémon Go is to find its various cast of characters and earn points. You could be walking the aisles of a grocery store while keeping an eye on your Pokémon Go app and see a Pikachu peek out from the bread shelves.

   Augmented reality is becoming a powerful way to teach concepts by making them

interactive and hands on—so much so that Google has committed to developing instructional materials specifically for augmented reality. Imagine a science class where students use augmented reality to determine the source and chemical reaction of a wildfire by observing environmental clues and interviewing virtual subjects. Augmented reality can not only put students in realistic environments, it can also allow them to interact with it, role-play, and apply knowledge within this responsive, unpredictable technological setting.

4. *Gamification.* The gamification of learning is wonderful, but not just because kids find computerized games engaging and fun. Their power is that they are built on a growth model, rather than a proficiency model. It's my belief that just as technology has disrupted scores of industries, it will also disrupt our traditional proficiency model of education.

   In the proficiency model, we are asked to take a classroom of students, entering at all different levels of aptitude, and get them to the same level of proficiency in 180 days. Then, we administer a test that measures students against each other to see if we got all of those kids to the same level. As educators, we know this is absurd.

   In a growth model, students compete against themselves. Through adaptive games, learning is personalized as the game adjusts with progress and setbacks. The student is simply trying to beat his or her last score.

   More and more gaming companies are creating interdisciplinary games around standards. What are sports but the application of math and science? A game might use a football or tennis to teach rates and force.

   If we strive to have all kids in a classroom at the same place at the end of 180 days, then we will move most to the lowest common denominator. In this way, the proficiency model has reduced standards for the top third of students. In a growth model, and with the help of gamification, each student will be able to meet his or her full potential.

5. *Online courses.* Most of us have taken an online course or two. They are typically boring and require that the learner be very self-disciplined—an attribute lacking in many of our students. But suppose the online course was built on an augmented reality, game-based platform? Suddenly, it becomes exciting and therefore engaging to our students. Suppose further that the augmented reality, game-based platform was tied directly to your state's academic standards.

   The nation's most rapidly improving schools are incorporating engaging online courses into their instruction, leading the way on this inevitable transition, with other schools sure to follow. This shift is changing and will continue to change the role of our teachers and how they teach. Some using online courses are noticing a shift in their time and focus. Where time was once focused primarily on content, online courses are freeing up teacher time, allowing them to do what computers cannot: spend more time nurturing relationships with all students, while some instruction is delivered at a fraction of the cost.

When changing instructional organization, there are typically two schools of thought: experimenting with the current instructional organization or radically changing current instructional organization. Let's compare the two.

Experimenting with the current instructional organization. Looping and interdisciplinary departments are great ways to play with how your instruction is currently organized. Looping helps educators cultivate stronger relationships with their students and therefore boost the

rigor and relevance of their learning.
In traditional school settings, department chairs tend to be protectors of the past, keeping disciplines neatly isolated from each other. This keeps instructional programs locked into Quadrants A/C. Interdisciplinary departments break educators and students out from Quadrants A/C and get them headed into Quadrants B/D. Find a group of teachers from different disciplines who get along and enjoy working together and ask them to begin working in an interdisciplinary department. Then give them the same group of students and a common planning period. Eventually, other teachers will want to join in. In taking this slow and steady approach, rapidly improving schools have used interdisciplinary departments to move toward relevant, application-based instruction in Quadrants B/D learning.

Both of these strategies help move us toward our goals—Quadrants B/D instruction and learning. But moving our educators toward these strategies can be challenging. Educators have spent most of their lives in school, first as students, then as educators. We, more than most, are used to the old way of doing things. We're comfortable with it. Changing it makes many of us uncomfortable.

First, remember that as educators committed to real change, we're establishing a culture that is future focused and one of empowerment. In this culture, strategic experimentation is encouraged. That said, my advice to leaders is do not mandate big experiments with the school day. Usually, it takes three to five years for these big changes away from the traditional structure to fully take hold.

Changing current instructional organization. Radical changes can include a shift to entirely project-based instruction, problem-based instruction, or academies. It is true that these models of instructional organization can be powerful vehicles to Quadrants B/D learning—can being the operative word.

The big risk with these vehicles is that too often schools jump into them without thinking through all of the ramifications. Often, people get caught up in the hope of radical change without realizing that if there isn't an underlying strategy, the radical promise of that change is unlikely to unfold.

Looping and interdisciplinary departments are strategies. They are a means to enhanced relationships and action with knowledge.

Academies and project- and problem-based instructional organization are tactical programs. They lack an inherent strategy. If the strategy is not in place first, these tactics will likely drift aimlessly and eventually into failure. If the end goal is not first defined, educators, parents, and students will resist such radical change they see as not having a clear purpose.

Start with the end in mind. From there, the instructional organization and programs best fit for your students will emerge—and with the benefit of buy-in from key stakeholders.

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