Rightboro Scenarios

Summary: One way to help imagine possible futures for your school is to explore case studies of existing schools. The Rightboro Scenarios look at examples of different approaches to taking advantage of a new school building and technology investment. One of the key arguments from the activity is that the signature quality of our most effective schools is "coherence," where faculty and students have a shared vision and shared instructional language. The activity is also designed to highlight how education buzzwords can have very different meanings to different people.

Materials:

- Paper
- Pens
- Poster board/whiteboard
- *Rightboro scenarios*. Each of the four scenarios describes a path taken by a typical small, suburban school district in New England. All four scenarios start by describing a district building a new high school, but then each district takes their new school in a different direction.

Instructions:

1. The Rightboro Scenarios are best explored as a Jigsaw activity, where participants spend two rounds in two different small groups.

2. In the first round, divide the participants up into either four or eight groups (or a multiple of four that fits your group size).

3. Give each group one of the four Rightboro scenarios. Remind participants that the scenarios are very short, and necessarily are missing details. Have the group spend 5-7 minutes writing some notes in response to the following questions:

   - What seem to be some of the strengths of this school's approach?
   - What seem to be some of the weaknesses of this approach?
   - What are two questions you might ask to flesh this scenario out?
   - If you really wanted this approach to be successful, what is one action you would prioritize to make it work?

4. Each person should become an "expert" in their scenario and be prepared to explain highlights from your discussion with others.

5. Next, "jigsaw" the participants so that they get into new small groups, where each group has someone with each of the four scenarios. Each group should respond to a new set of questions:

MIT | TEACHING SYSTEMS LAB

- What are the dimensions of difference across these scenarios? What elements are common to each scenario, but expressed differently in each?
- What are some of the pros and cons of each scenario?
- How could each scenario be considered an example of personalized?
- Finally, do any of the scenarios represent a plausible path forward for your school?

Debrief:

1. Bring people back together. Have folks report out on the dimensions of difference that they identified. Some of these might include
   - Purpose of schools and key qualities for successful graduates
   - Breadth or focus of the mission
   - Pedagogical approaches aligned with the focus of the school
   - Specific strategies for measuring progress

2. Can you see where each of these schools might be doing some form of *personalized learning*? One of the schools tries to personalize learning by optimizing each student's trajectory through the school. Another school focuses on personalization around students' individual interest. It's important to know that the term personalized learning does not mean much unless it's defined by the school using it based on that school's beliefs, strengths, etc. Discuss other terms that might differ depending on the setting. In your school, is there any vocabulary that might be defined differently depending on the department or the classroom? How might you correct this in your school?

3. One of the most common responses from educators participating in examining these scenarios is to want to take bits and pieces from each school and combine them. As a facilitator, I push back against this perspective. It would take years for most schools to get better at any one of these approaches to teaching and learning, let alone multiple of them. And if we look at our best schools, they tend to provide more of a coherent, focused learning experience than trying to have bits and pieces of lots of approaches, but no real focus. There isn't necessarily one perfect system of schooling, but many of our best schools identify a focus and pursue that. It's not about picking the one right system, it's about getting one system right.

4. The Rightboro Scenarios are loosely based on existing schools, (1) is High Tech High or Science Leadership Academy, (2) is Village Green Academy, (3) is the kind of approach to learning with iPads that EdTechTeacher has advocated (perhaps best expressed at Blake Middle School in Medfield or in the Minnetonka Schools), and (4) is Sanborn High School in New Hampshire or the Summit Public Schools. None of these approaches are the right answer, but they all have a compelling focus.

[We've used different versions of these scenarios working with school leaders over the years. An older version, the Newmarket Scenarios, creates more variability in the coherence that different imagines schools bring to their new initiative.]

MIT | TEACHING SYSTEMS LAB

Scenario 1: Focus on STEM

Rightboro is an affluent town in the suburbs of Boston with approximately 4,000 students in four elementary schools, a middle school, and a high school. The Rightboro School Board received approval for state matching funds three years ago to build a new, state-of-the-art high school facility. The new building will open this September, and it has excellent, high-speed, redundant connections to the Internet and wireless access that reaches every classroom and study space.

Rightboro believes that STEM fields will offer the greatest opportunities for its graduates in the decades ahead and hopes to prepare students who are familiar with design thinking, engineering principles, and project management. Rightboro's new high school will include a number of "maker spaces" that are outfitted with a wide variety of hand tools, building materials, electronics components, small computers like Arduinos, and larger tools such as 3D printers and laser cutters. During the freshman year, students take a combined humanities/physics class that culminates in a major class project, such as a short play performed on a set built by the class or moving dioramas of life in ancient civilizations. In subsequent years, students are encouraged to take computer science and engineering electives that focus on programming robots to complete complex tasks like cutting fruit, folding towels, or competing in obstacle courses. All classes are encouraged to offer students "20% time," where they can spend one class period a week devising projects of their own choosing for presentation at the end of the semester. Rightboro judges the success of their program by evaluating the quality of final projects from courses, electives, and independent projects; and by evaluating the number of students, especially girls and students of color, who go on to pursue STEM majors in college.

Scenario 2: Self-Pacing and Specialization

Rightboro is an affluent town in the suburbs of Boston with approximately 4,000 students in four elementary schools, a middle school, and a high school. The Rightboro School Board received approval for state matching funds three years ago to build a new, state-of-the-art high school facility. The new building will open this September, and it has excellent, high-speed, redundant connections to the Internet and wireless access that reaches every classroom and study space.

Rightboro believes that every student should be able to advance through the academic curriculum at their own pace, and that they should be able to specialize in particular fields during high school. Rightboro's new high school provides a laptop for each student, and the core curriculum in English, Math, and Science is available for students online. Students spend much of their time working independently on learning modules and assignments. Each student has their own cubicle space for independent work, and they proceed at their own pace. In the core courses, the primary role for teachers is to evaluate student data from these assignments and identify students who need additional support, such as small group instruction or one-on-one tutoring. In the upper grades, students are encouraged to take online courses through partnerships with local community colleges to begin earning college credit. When certain courses are not available, students are encouraged to find MOOCs or other open online courses that fulfill their interests, and faculty work with students to help them earn credit for these courses through an "Independent Study" program overseen by faculty mentors. Rightboro judges the success of their program by evaluating the number of students who can enter college with advanced standing to either graduate earlier or pursue more advanced specializations.

Scenario 3: Focus on Communication Skills and Building a Portfolio

Rightboro is an affluent town in the suburbs of Boston with approximately 4,000 students in four elementary schools, a middle school, and a high school. The Rightboro School Board received approval for state matching funds three years ago to build a new, state-of-the-art high school facility. The new building will open this September, and it has excellent, high-speed, redundant connections to the Internet and wireless access that reaches every classroom and study space.

Rightboro believes that successful graduates will have strong multimedia communication skills, and leave school with a portfolio that vividly illustrates their learning and accomplishments. Rightboro has a one-to-one tablet program where every student has their own iPad, and students are taught to see the tablet not as a simple replacement for notebooks or textbooks, but as a powerful multimedia device for creating, editing, and publishing. In all courses, students use the iPad to document their learning: they take photographs of observations in science labs, make screencast recordings of problem-solving in Math class, and publish reflective literature blogs with snippets of annotated text in English class. All classrooms have at least two Apple TVs that allow students to easily project and share their work. Every semester, courses have "capstone projects" that involve creating some kind of summative performance of understanding, curating key assignments from throughout the semester, and publishing a reflective multimedia essay about their semester. All of this work is published on a school platform, and students are also encouraged to publish their best work publicly online. Rightboro judges the success of the program by evaluating the quality of student portfolios, and by Googling the names of the graduates and evaluating the character of their online footprint.

Scenario 4: Flipping the Classroom and Fostering Independent Learners

Rightboro is an affluent town in the suburbs of Boston with approximately 4,000 students in four elementary schools, a middle school, and a high school. The Rightboro School Board received approval for state matching funds three years ago to build a new, state-of-the-art high school facility. The new building will open this September, and it has excellent, high-speed, redundant connections to the Internet and wireless access that reaches every classroom and study space.

Rightboro believes that successful students are independent learners who are capable of demonstrating mastery of skills and knowledge within the core subject areas. Rightboro faculty have invested heavily in creating faculty-produced open source video textbooks, where teachers explain core ideas in their subject areas. Classes are then run using a "flipped model" where students watch video lectures, do online activities, and read source material at home, and then come into school for discussions, projects, and assessments. Each course has a defined set of standards, and students are evaluated on the coverage and depth of mastery of those standards. Any assessment can be retaken or revised, and a student's final grade is determined by the proportion of standards mastered by the end of the semester, not the quality of work produced in developing mastery. Most classrooms are designed as "agile classrooms," with movable furniture that allow students to organize into working groups of different sizes, or to work independently. Rightboro has a "Bring-Your-Own-Device" policy where students can access the open course video textbooks and other course materials from their own personal devices, and they are encouraged to complete assessments and do in-class activities using those same devices. Rightboro judges the success of their program by evaluating the total number of standards mastered by all graduating students as a proportion of the total number of possible standards to be mastered.

MIT | TEACHING SYSTEMS LAB