



During a kickoff workshop for the educational specifications process, key FCPS stakeholders discussed new ways of organizing the environment and allocating space.

# Educational Specifications for the 21st Century

*How one school system built specifications  
to support the future of learning*

By Dale Rumberger, Sean O'Donnell, Brian Donnelly, and Andrea Shaw

**F**orces of change ranging from international economics and politics to global communications technology and environmental issues are influencing our educational systems more than ever before. These forces challenge not only what we need to know, but how we come to know it—the tools and places we use for learning, our communities, and our schools.

A number of school districts throughout the country are seizing the opportunity not only to amend their existing educational standards but to step back and comprehensively re-evaluate their educational specifications, or “ed specs,” the documents that describe how architecture should support education. Doing so will ensure

that the districts respond to and reflect contemporary instructional needs—not specifications designed years or even decades ago—yet provide the flexibility to address alternative futures.

One such district is Fairfax County Public Schools (FCPS) in Virginia. With its 20-year-old ed specs, FCPS recognized that rapid changes in curriculum, technology, and demographics had outpaced its standards and that a comprehensive renewal was in order. As the 11th largest district in the country, with more than 175,000 students, 196 school buildings, and some of the highest performing schools in the nation, FCPS also realized that this opportunity would allow the system to dig deeper and think bigger about

the future of education, how students learn, and how the buildings and spaces they build could best support success for students and the community.

While the results of such a renewal process will be specific to the district, FCPS formulated a number of key strategies for effectively addressing a revision of its ed specs that catalyzed wide-ranging conversations about the future of teaching and learning. These strategies would be widely applicable to any district beginning to re-imagine its ed specs.

**Identify a consulting facilitator to lead the charge.** FCPS identified an informed and objective facilitator without a stake in the outcome to lead the process—a retired teacher and

principal with broad knowledge of the district who also understands the evolving landscape of education locally, regionally, and nationally.

Serving as an ombudsman, such a facilitator can objectively and fairly guide conversation, encourage areas of inquiry, challenge assumptions and unsubstantiated assertions, conduct research and review trends, and keep all parties informed about the progress of the work.

**Engage key constituents in the community.** Schools are workplaces and centers of community as well as places to learn. Re-imagining ed specs should involve a broad range of constituencies, including educators, staff, students, parents, and members of the larger community.

In working with school-based Student Advisory Councils, the FCPS facilitator briefed the students on the process and the goals and then encouraged small subgroups to identify and discuss student issues, concerns, and ideas. Each student group then shared its discussions in a larger forum, which included a core group of principals who attended each stakeholder meeting. While often addressing larger issues of learning, these forums also generated many more modest but useful insights.

**Jumpstart the conversation.** To ensure that the process would consider a wide range of options and look beyond the school's and the district's own boundaries and experiences, FCPS kicked off the process by bringing in outside thought leaders and experts on school design. As part of this process, FCPS engaged Perkins Eastman, an international design and architecture firm with expertise in school design, to lead a workshop on major school design trends drawn from schools around the world.

Attended by principals, curriculum and technology specialists, and facilities personnel, this workshop was designed to encourage participants to step outside of their daily experience and discuss alternatives to the existing standards. Perkins Eastman's ideas and precedents addressed different ways of organizing the environment and using and allocating space, existing spaces that are evolving and new spaces that are emerging, and the influence of technology and sustainable design.

Tours of recently erected build-

## With the scope and accelerating pace of change, school districts need to ensure that their facilities can continue to support 21st century education.

ings in other school districts in the Washington metropolitan area illustrated some of the bigger ideas and alternatives discussed in the workshop. Designed not to challenge but to inspire, the workshop initiated numerous conversations on topics large and small, ranging from the use of lockers to the future of the media center, the evolution of cafeteria into "commons," and the creation of a "heart of the school."

**Ask big questions, but keep them focused.** The kickoff workshop raised the fundamental questions that an ed spec revision process should address. Among them:

- How has learning changed since the last ed spec revision?
- How will learning continue to evolve in the foreseeable future?
- Since learning is changing, how should teaching respond?
- How can the built environment support these changes now and provide the flexibility to adapt in the future?

Asking anyone, let alone educators and parents, to anticipate and plan for an educational environment 20 years into the future is asking the impossible at the risk of ignoring the present and the near future. To that end, the facilitator encouraged the participants to initially focus on the short term—for example, the next three to four years—when discussing the ed spec revisions. From this more digestible starting point, the conversation grew toward addressing longer-term possibilities and building broader consensus.

**Don't forget existing school buildings.** With 196 buildings, FCPS is committed to the continued ability of its entire inventory to support 21st century education. In fact, the ed specs would be used to modernize existing facilities more frequently than to build new ones. Accordingly, FCPS and Perkins Eastman began assessing existing school buildings against the design principles being discussed from the very beginning.

For example, the entire portfolio

was categorized into 10 basic building typologies, ranging from "bar" buildings, courtyard buildings, and "E" and "H" plans to radial buildings. The team then developed quick test fits to evaluate the impact potential new design principles and organizational strategies might have on these existing buildings.

As the revision process unfolded over time, FCPS continued to implement its capital plan while also considering the final product of this process. Ongoing design projects began to test some of design principles and space standards that had reached early consensus, including the creation of new student-centered commons and the heart of the school. These very concrete implementation efforts provided feedback for the emerging education specifications that are endeavoring to provide flexible, visual design guidelines that define expectations but do not limit creativity and innovation.

With the scope and accelerating pace of change, school districts need to ensure that their facilities can continue to support 21st century education. While the effort is considerable, the results of the process will ensure that your facilities enhance rather than impede your mission, build consensus around how this vision is achieved, and enable you to gain the best value for every dollar invested in facilities.

Using the strategies identified above as a guide, the revision process can be well orchestrated and unite the community, enabling it to define priorities and ensure that our schools foster the education that we expect and desire for our children. ■

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