Facilities Design Considerations
for
Small Schools That Share a Building

As more and more Ohio Schools (and schools across the country) embark upon small schools work, it is critical that the educational design community find ways to assist districts that are transforming large comprehensive high schools into multiple small schools. A growing body of research demonstrates that it is important for small schools to have autonomous governance structures, leadership, staffing, budgets, schedules, and space.

However, while a school's physical space is becoming increasingly well recognized as a key factor in the success of small schools that share a building, little information is currently available on the ways in which school *buildings* can facilitate the restructuring process and promote the creation of autonomous small schools. To quote Ann Cook, co-director of the Urban Academy Laboratory High School in the Julia Richman Education Complex, "…with all the volumes of school research, amazingly little has been written about the use of space, about how classrooms or corridors, offices or shared work areas hinder or encourage school change."

To help fill this void, KnowledgeWorks Foundation has investigated what can be done from a design perspective to promote the success of small schools that share space. Based on a review of the available literature, conversations with educators and facilities professionals, participation in school site visits, and the Foundation's work with urban Ohio districts working to transform their large comprehensive high schools into autonomous small schools, the Foundation has developed a set of design principles for small schools that share a building. While it will not be feasible for all schools to put each of these design principles into practice because of issues such as financial constraints and site limitations, the principles can help school personnel and community members to see new possibilities and maximize their opportunities for restructured schools.

> Although the term most commonly used to describe multiple small schools housed within a common facility is "schools-within-schools," many people actively involved in small schools work do not feel that this phrase accurately describes autonomous small schools that share space. The new small schools in Ohio will operate in the same manner as multiple companies that share a single office building - or separate stores in a shopping mall - with their own governance structures, personnel, and budgets. In order to better reflect autonomous small schools, the Foundation has opted to use the phrase "small schools that share a building" to describe this type of configuration.

Guiding Principles for Small Schools That Share a Building

Arguably, the most important guiding principle for any school facility is that **a school's educational program, vision, and values should drive facility design**. This means that rather than educational activities being dictated by a school's physical space, school facilities should be designed to support teaching and learning. For example, if a small school community decides that its curricular focus will be project-based learning, decisions related to facilities design should be based on the types of spaces that best support this learning approach. Thus, the school community may choose to incorporate space for small group work, messy projects, and portfolio storage into the building design in order to support the school's educational program.

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In addition to this key guiding principle, two concepts that are frequently touched on by educators and designers when discussing design principles for small schools that share a building are **autonomy** (creating a sense of separateness between the small schools) and **community** (creating a shared sense of identity within each small school). Design principles that can help small schools achieve these guiding principles are listed below.

Design Principles for Small Schools That Share a Building

Dedicated Space

As stated by authors Daniel Duke and Sara Trautvetter in the National Clearinghouse for Educational Facilities article *Reducing the Negative Effects of Large Schools*, "When small units constitute separate schools with their own curricular focus and administration, it is important for each to have a distinct physical identity (p. 8)." Ideally, each small school should have its own classrooms, labs, decentralized administrative offices, commons or gathering space, restrooms, and storage space. These spaces should be contiguous to help create a sense of community within the small school and provide for easy access. Each small school should also have its own circulation pattern (e.g. dedicated hallways and stairwells) to minimize or eliminate traffic from other small schools.

A building's floor plan and natural divisions such as wings and doors can and should inform decisions of "what goes where." In a multi-story building, small schools may be separated vertically by floor, or they may be separated horizontally to take advantage of existing building wings and outside entrances.

Facilities needs should be drawn from schools' educational programs. As noted above, a school should consider what types of spaces will best support student learning and achievement in its particular learning environment. For example, a school with a performing arts focus would most likely benefit from being in close physical proximity to performance spaces such as auditoriums and dance studios. Small schools should use their dedicated space in ways that support their unique curricula.

Separate Entrances

Just as townhouses are connected, but have individual entrances/exits to create a sense of separateness, so should small schools that share a building. Individual outside access points should help students, school staff, parents, and visitors to view each small school as a separate entity apart from the larger building. Preferably, each individual entrance/exit portico would have its own shape (e.g. square or triangular) with materials/décor appropriate for each individual school - allowing a school's unique identity to be apparent even before entering the building. Ideally, separate parking lots would be located at each entrance.

If separate entrances are not possible due to site limitations, lack of funding, etc., gateways and/or signage within the building announcing an individual's arrival to a small school are less expensive ways to signal separateness between small schools that share space.

Separate Lobbies

Each small school should have its own lobby or reception area that conveys its unique personality. For example, if the school has a creative arts focus, the lobby could serve as an art museum showcasing student work; or if the school has a science and technology focus, the reception area could highlight famous inventors. Artwork, sculpture, and general décor should be customized to match the spirit of each school.

Separate Graphics

Each small school should have its own name, logo, icon, font, and/or mascot to convey a sense of place and its unique identity. All of these distinctions should help people to see each small school as separate from the larger building, and to identify with their own small school. If possible, funds should be allocated to each small school to display its unique name, logo, icon, font, and/or mascot in places such as the school lobby, floor tiles, window treatments, and school letterhead.

Separate Color Schemes

The utilization of different color schemes for each small school is another way to create a sense of separateness in small schools that share a building. This is often something that can be done even with limited funds.

Separate Furniture Styles/Pieces

Small schools that share a building will most likely have different furniture needs based on their unique curricula/educational programs. The utilization of different furniture styles is another way to convey each school's personality. For example, one school could choose furniture with a historic feel for its lobby while another could select contemporary pieces.

Flexibility

While flexibility is an important design principle for any school facility, it is especially important for small schools that share a building. Flexible facilities offer small school communities more ways to support their unique educational programs, especially over time. School themes, curricula, enrollments, etc. will most likely change over time to reflect the changing needs and interests of students, teachers, and communities. While a large comprehensive high school may initially plan to implement four autonomous small schools, what if the school community decides five years later that six autonomous schools would better serve the needs of students and school staff?

Flexibility can also enhance personalization, a primary goal of small schools. Since students have different learning styles, a building that supports a wide variety of learning activities can help all students succeed. All of the new small schools in Ohio will create individualized learning plans for their students, making flexibility within small school facilities even more critical.

One way to infuse flexibility into buildings that house multiple small schools is to incorporate multipurpose lab space into each small school. Multipurpose lab space can be designed to accommodate a wide variety of work such as science experiments, visual arts coursework, and group projects. It can enable school space to be utilized throughout the day rather than during just a few periods. Using school space more efficiently can open up square footage for other needs, such as decentralized administrative offices and small school commons areas.

While some small schools have installed movable walls to increase the flexibility of their space, this can be an awkward solution. Other small schools have found that by using materials creatively, they have been able to meet the needs of their educational programs while maintaining flexibility. For example, instead of putting up permanent or movable walls to divide existing classroom space into smaller areas for group work, garage doors can be used to quickly convert space for large group activities into space for small group activities. Along these same lines, "hospital curtains" hanging from tracks on the ceiling can be utilized to create temporary nooks for individual or small group work within a larger space.

User-driven Process

In order for users to truly identify with small schools, they must make them their own. School "insiders," primarily teachers and students, need to drive the reconfiguration process and consider their own schools' requirements alongside the needs of other schools sharing the facility. Schools that have placed their own needs and desires in context of the larger space have found more areas of agreement and fewer areas of contention with other small schools planning to operate within the same building. Another strategy is to have teachers who are not directly involved in the design team for a small school be charged with identifying space for each small school, based on the requirements for each school.

Teachers and students should develop the unique identity of each small school by selecting furniture, designing the lobby and school logo, etc. The users of each small school should meet with the project architects or design team to help them understand that each small school is a separate client.

It is also critical to engage people from all segments of the community - including parents, neighbors, businesses, and community and faith-based organizations - in the design process. This helps generate a sense of community ownership, a key factor in sustaining school improvement efforts. It is important for those involved in small schools work to pay attention to both the "process" and "outcomes" of school restructuring.

School-Community Partnerships

Engaging a wide variety of community members in the transformation process can also help identify resources. The development of school-community partnerships and their alignment with each small school's chosen curriculum or theme can provide additional resources to schools and enhance each school's distinct identity. For example, a school with a health and wellness focus could partner with a local hospital or clinic to obtain resources that enrich the curriculum and help create a unique atmosphere in its lobby, hallways, and classrooms.

School-community partnerships can also lead to facilities shared with non-school entities. Space within schools can be used for co-located services and organizations such as health clinics, day care facilities, senior centers, and other groups. Such opportunities can also resolve the issue of empty space for schools with declining enrollment. Additionally, both autonomy and community can be enhanced when small schools share space with community partners such as local universities, museums, and youth development organizations - both outside of or within a traditional school building. As schools find ways to move learning activities outside the school building, more space inside the school building opens for community use. It can be helpful to think of facilities on a **continuum** of school-community use.

Since space needs typically change over time, sharing space with community partners can also provide small schools with additional flexibility. If a school's enrollment increases, additional small schools could be accommodated by locating at a community partner or revamping existing community facilities rather than adding portable classrooms to the existing school building or investing in costly additions. By thinking beyond the walls of traditional school buildings, facilities being retrofitted to house multiple small schools may not need to house all learning activities, services, and small schools within the existing building.

In order to share space with community resources effectively, community engagement should take place prior to design, and a needs assessment should be conducted to identify resources that may be shared and to prevent duplication of services.

Strategies for Sharing Space

Even though it is ideal for small schools to have their own dedicated space, the reality is that many small schools will need to share spaces such as cafeterias, gymnasiums, and auditoriums. Strategies currently being employed by small schools to share common areas effectively include forming a building council and/or selecting a building manager, and developing shared use agreements, guidelines, or a memorandum of understanding. Another strategy is to link common spaces to spaces within each small school. For example, small schools could share a centralized kitchen but house separate dining areas, thus decreasing the demand for shared cafeteria space.

Two additional strategies for sharing space involve housing a wide range of grade levels within the same building and staggering small school schedules. Housing a small elementary school (for example) in the same building as a small high school can automatically create a feeling of separateness between the two schools, something that can be harder to achieve when multiple high schools share a facility. Staggering schedules (e.g., arrival and dismissal times, class periods, lunch periods, etc.) can discourage students and staff from different small schools from mingling in the hallways and other shared spaces, thus promoting both autonomy and community.

The Physical Supports the Psychological

Space is both a physical and a psychological concept. Although the physical structure of a school is significant, it is important to note that many professionals with experience in school restructuring believe that the most critical factor in the success of small schools that share space is the mindset of the individuals involved in their design and implementation. While building configuration and design can promote the establishment of autonomous small schools, people - not facilities - are ultimately responsible for the changes which do (or do not) occur as small schools are developed and put into practice.

In order to truly reap the benefits of structural changes (e.g. decentralized science labs), students and school staff must think about education, their roles and responsibilities, and their school facilities in completely different ways. To maximize the success of small schools that share a building, a school or district must ensure that each new small school looks sufficiently different from the old school to prevent people from backsliding into old mental models. In other words, the physical structure of a school needs to change as much as possible so that people think of each new small school as fundamentally different from the old structure, and not just engage in "business as usual."

"Hot housing" (i.e., housing small schools in alternative locations prior to placing them in buildings that have been designed or redesigned to house multiple small schools) can help a school community to "start fresh," develop its own unique identity, and create new mental models before sharing space with others.

Conclusion

Small schools that share a building do encounter a unique set of challenges, but these should not serve as "roadblocks" to school transformation efforts. By supporting small schools' unique instructional programs and fostering autonomy and community, school facilities can facilitate school change. KnowledgeWorks Foundation hopes that the design principles offered above will stimulate new thinking and discussion, and help schools and communities develop and implement successful small schools that share a building.

References

Cook, A. 2003. *Changing spaces: Redesigning small schools*. http//www.jrec.org/JREC_SpaceDesign.pdf

Cotton, Kathleen. 2001. *New small learning communities: Findings from recent literature*. Portland, OR: Northwest Regional Educational Laboratory. http://www.principals.org/s_nassp/store_front.asp?CID=3&DID=3 (must be purchased)

Davidson, Jill. Fall 2001. Innovative school design for small learning communities. *Horace*. (18)1. Oakland, CA: Coalition of Essential Schools. http://www.essentialschools.org/cs/resources/view/ces_res/208

Duke, Daniel L. and Sara Trautvetter. 2001. *Reducing the negative effects of large schools*. Washington, D.C.: National Clearinghouse for Educational Facilities. http://www.edfacilities.org/pubs/size.pdf

Gregory, Tom. 2001. *Breaking up large high schools: Five common (and understandable) errors of execution*. Charleston, WV: ERIC Digest. http://www.ael.org/page.htm?&pv=x&pd=1&index=228

Lawrence, Barbara. 2003. *Back to the agora: Workable solutions for small urban school facilities*. ERIC Digest. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. http://www.ael.org/digests/edorc03-4.pdf

Lawrence, Barbara et. al. (2002). *dollars & SENSE*: *The cost effectiveness of small schools*. Cincinnati, OH: KnowledgeWorks Foundation. http://www.kwfdn.org/Resources/dollars_sense.pdf

Lear, R. J. and Wasley, P. A. 2001. Small schools, real gains. *Educational Leadership*. (58)6. http://www.ascd.org/infocon/ (must be purchased)

Steinberg, Adria and Lili Allen. 2002. *From large to small: Strategies for personalizing the high school*. Boston, MA: Jobs for the Future. http://www.jff.org (must complete free registration)

Center on Reinventing Public Education. *Organizing and designing small schools through conversions of large comprehensive schools*. Seattle: The Small Schools Project, Center on Reinventing Public Education, University of Washington. http://www.smallschoolsproject.org/PDFS/conversions12ways2.pdf

Small Schools Project. 2003, November. *The learning network: A newsletter for Washington State high schools that receive Gates Reinvention Grants*. (4)2. Seattle: College of Education at the University of Washington. http://www.smallschoolsproject.org/PDFS/TLN_onnov03.pdf

Chicago Public Schools - Office of Small Schools, Chicago High School Redesign Initiative Business and Professional People for the Public Interest. *Schools sharing buildings, a tool kit: Principles and practices from the Chicago Public Schools*. 2003. Chicago, IL: BPI. http://www.bpichicago.org/bpinews.html (must be ordered)

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