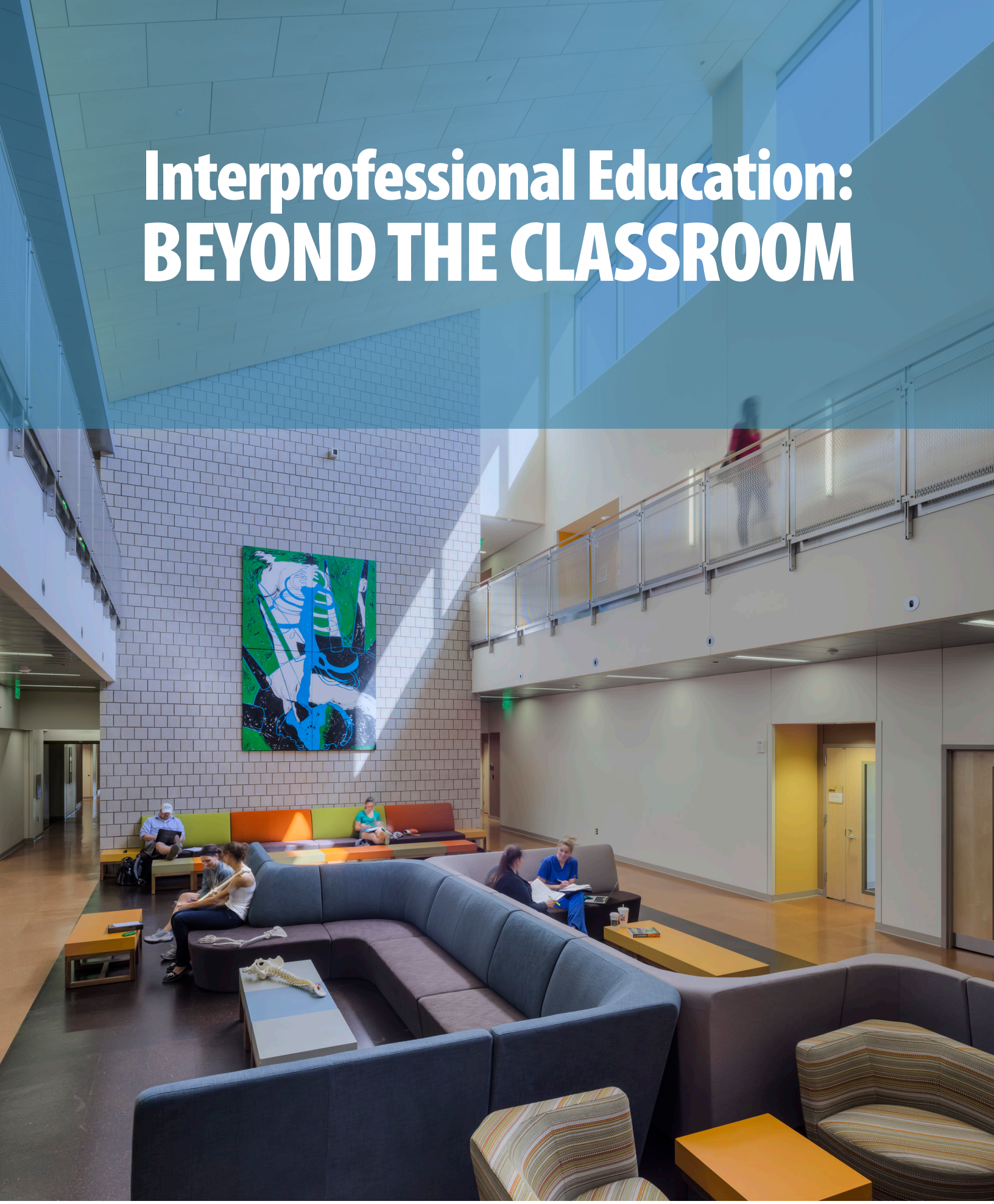
Interprofessional Education: BEYOND THE CLASSROOM



SMITHGROUP

SmithGroup Convened an Advisory Board to discuss how interprofessional education is affecting the types of spaces required for health professions education.

BEYOND THE CLASSROOM

Design for Interprofessional Education

The necessity for providers from all health professions to work together in coordinated care teams has become a critical component of patient care. Faced with an aging population with multiple morbidities, and a rapid rise in chronic conditions like diabetes, the health care system is challenged to provide full spectrum care as patients' needs progress from managing acute conditions to onset of long-term diseases. The need for healthcare practitioners who can work effectively in this environment has driven the rapid adoption of an interprofessional education (IPE) model for the health professions.

As a design firm serving both the higher education and healthcare markets, SmithGroup is committed to understanding the trends that drive the space and design needs of our clients. Members of our health sciences education design team met with representatives from a cross-section of medical, nursing, physical therapy and dental programs to discuss how the move to interprofessional education is affecting the types of spaces required for health professions education.

There has been considerable discussion regarding how to design classrooms to foster collaborative learning. For this discussion, we decided to focus on areas outside of the classroom and explore the role that these spaces play in fostering interprofessional education. Our discussions evolved around three topic questions:

1. **What are the best informal settings to bring together students together?**
2. **What is the most effective use of simulation for IPE?**
3. **How can faculty work space support interprofessional collaboration?**

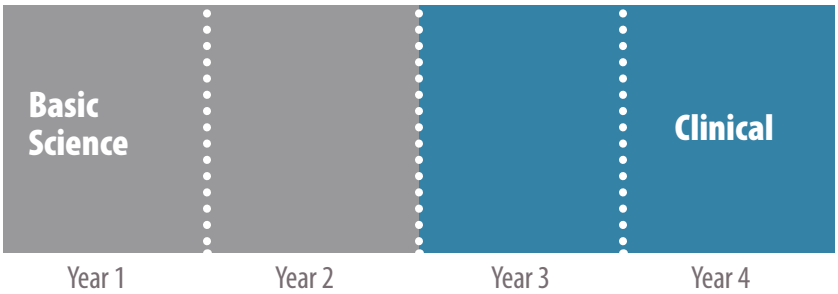
It's important to understand the answers to these questions and we look to implement and design appropriate settings for Interprofessional education.

1 What are the best informal settings to bring together students together?

The intensity of most health professions curricula dictates that students will spend significant periods of time in academic buildings. Centrally located, neutral social space, food service, and lounge areas are important to support student wellness, relieve stress and are instrumental in bringing students together from across disciplines or professions. Spaces that support student wellness, while often viewed as "luxuries" are critical to student success. In fact, an emphasis on wellness can be a common thread that unites professions.

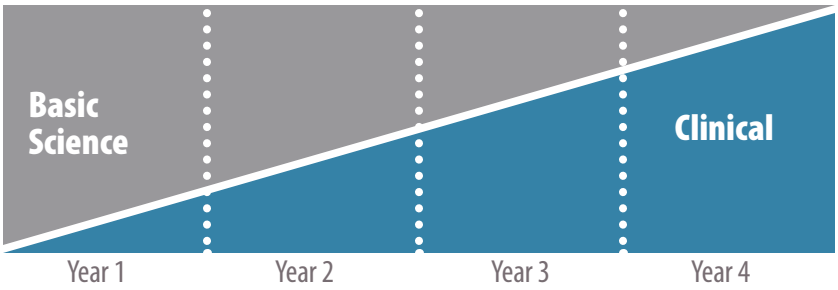
Implementing an IPE curriculum across multiple professions creates challenges when it comes to designing spaces for learning. Many times, the format of these programs results in competing space needs. A day may begin by bringing together hundreds of students for an introductory lecture, and then breaking the class into smaller groups for continued discussion and activity. All of the schools in our group that had initiated interprofessional education programs cited space utilization conflicts as particularly challenging.

Curricular Change



Traditional Curriculum

- Two years of basic science instruction followed by two years of clinical skills training
- Disconnect between basic science learning and application to clinical problem solving
- Large format classrooms for didactic instruction—accommodate the entire cohort



New Curriculum

- Early and continuous exposure to clinical skills
- Direct application of basic science knowledge to clinical issues—Problem-Based Learning (PBL)
- Small, collaborative, interprofessional groups of learners—Team-Based Learning

Flexibility is critical and can often help to address these challenges. Breakout spaces can take many forms, from comfortable lounge seating areas outside of a large lecture hall, to enclosed meeting spaces outfitted with display capabilities and whiteboards. During the day, these spaces can accommodate small group breakout activities; in the evenings, they double as informal gathering spaces enlivened by students working together on projects.

One must consider that how these spaces are shared also changes in an interprofessional environment. The move from interaction space dedicated to specific schools to space shared by multiple schools may require an institution to revisit its policies regarding how students access various parts of campus or revise its scheduling systems.

IDEA EXPLORATION

As students collaborate across professions, access to resources is a common need. The creation of a "Resource Hub" that provides students access to both human (faculty and staff) and electronic resources is a great way to foster interprofessional collaboration. This is not a traditional library, but a multi-media maker space that is comfortable, flexible, welcoming and supports collaborative student projects and research.

2 What is the most effective use of simulation for interprofessional education?

Simulation has emerged as a critical tool in interprofessional training. While simulation exercises are effective for teaching and refining technical skills in many professions, in IPE programs they have become crucial in developing team building and leadership skills. Equally critical to IPE is the debriefing process. The ability to critically assess the performance of an interprofessional team's response to a given scenario is a skill that will be required in practice, and care teams must be able to evaluate and continually improve their performance.

Educators that rely on use of simulation in training must also explore how best to integrate multiple professions into spaces designed for more focused use. This has been a particular challenge when integrating dental education into an IPE curriculum. Dental simulation labs are carefully tailored to develop specific skills, and customization can make it difficult for other programs to efficiently utilize the space for their own training needs.

Nursing and medical schools have experienced challenges. While simulation labs offer students the opportunity to practice their skills in a simulated acute care environment, the model of practice within the medical community is shifting as practitioners are being called to move healthcare back to the home. From hospice care to community and population health, practitioners contend that bringing health services closer to patients' homes may be a more effective delivery method. As a result, simulation centers must be designed to accommodate a diverse range of environments. But the need to broaden and increase the space allotted to simulation raises issues of cost, and demands new, more cost-effective solutions. One option that many programs have considered is more flexible space that can be easily reconfigured to create multiple environments within one space. The concern is that this ability will come at the cost of placing students in less authentic environments. Solutions to this issue that merit more exploration include increased use of modular components, or even virtual backdrops. More effective use of space is a critical issue as the demand for simulation increases, often without a concomitant increase in funding.

Simulation training in IPE is particularly critical, because many clinical placements may not yet have adopted an interprofessional model. Clinical sites are generally managed by people who may have received their training 20 or more years ago. It is natural for people to prefer to teach the methods they learned and have practiced under. Strong IPE simulation experience can equip students with the skills they will need to become change agents and advocates when they enter practice themselves.

IDEA EXPLORATION

Clinical Innovations Suite: a "black-box" style space where different simulation environments can be mocked up. Space would be flexible and enable testing of multiple health care scenarios that can respond to curricular goals.

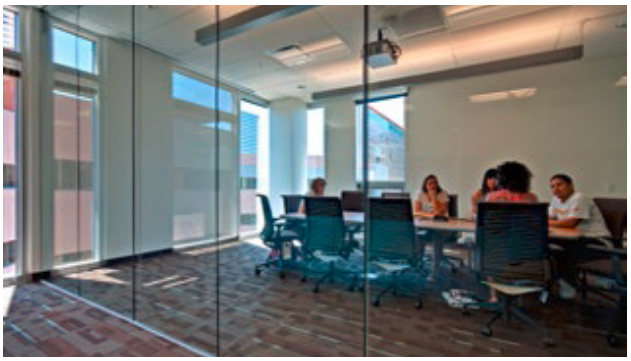
3 How can faculty work space support interprofessional collaboration?

The final portion of our discussion centered upon how faculty space might be redesigned to support faculty in these endeavors. Discussion participants that had created spaces to co-locate faculty members from disparate departments generally reported that the consolidation had immediate benefits and encouraged new approaches to collaboration. The discussion also revealed that funding and tenure – not spatial concerns – were the primary issues standing in the way of increased collaboration. While individual faculty members may be interested in pursuing collaborative projects, they often find that interdepartmental administrative issues can present serious obstacles. It was proposed within the group that shared administrative and leadership space might be more important than shared faculty space; that this might spur a greater institutional commitment to collaboration.

New approaches to faculty workspaces were discussed. As the corporate world moves towards more open and collaborative environments, some academic institutions have begun to follow suit. For example, the new University of the Pacific A. Arthur Dugoni School of Dentistry does not have private faculty offices. Instead, the school opted for an arrangement of open workstations complimented with an array of conference and huddle rooms. While the group conceded that such an

IDEA EXPLORATION

Recognizing that an integrated IPE curriculum requires faculty to faculty collaboration, an "Instructional Innovation Center", embedded within the office environment is a place where faculty can develop and test new programming for interactive learning. Envisioned like a Problem-Based Learning (PBL) lab, the space would be outfitted with equipment, furnishings and technology that could be re-configured easily by faculty as they explore new ways of collaborating together.



Collaboration: Informal meeting spaces can provide the technology needed for small groups to share and collaborate on electronic documents.

Privacy: Small huddle rooms are available when acoustical privacy is required.

arrangement might support a higher degree of collaboration, there was some trepidation regarding how it might be accepted by faculty. While discussing the character of collaborative faculty space, there was concern expressed that openness not come at the cost of safety. While a collaborative environment supportive of student and faculty interaction was seen as attractive, the group felt that allowances still needed to be made for space in which faculty could feel secure, especially during off-hours.

The group also agreed that the design and placement of support staff space is equally critical as faculty space. Support staff must have easy and quick access to the faculty and administrators they work for if they are to be effective.

CONCLUSIONS

Since the core competencies of IPE are rooted in social interaction, communication and mutual respect, it is not surprising that informal gathering spaces, simulation settings and the faculty workplace environment are critical in achieving a successful IPE program. These spaces are the necessary complement to what happens within the formal setting of a classroom. The roles that these spaces play will continue to evolve, especially as health sciences education continues to welcome increased connectivity with other professions such as law, engineering, and business enterprises join in partnership to address the world's healthcare challenges.

SmithGroup's Convenes IPE & Collaborative Practice Design Charrette

We live by a mantra we like to call integrated design.

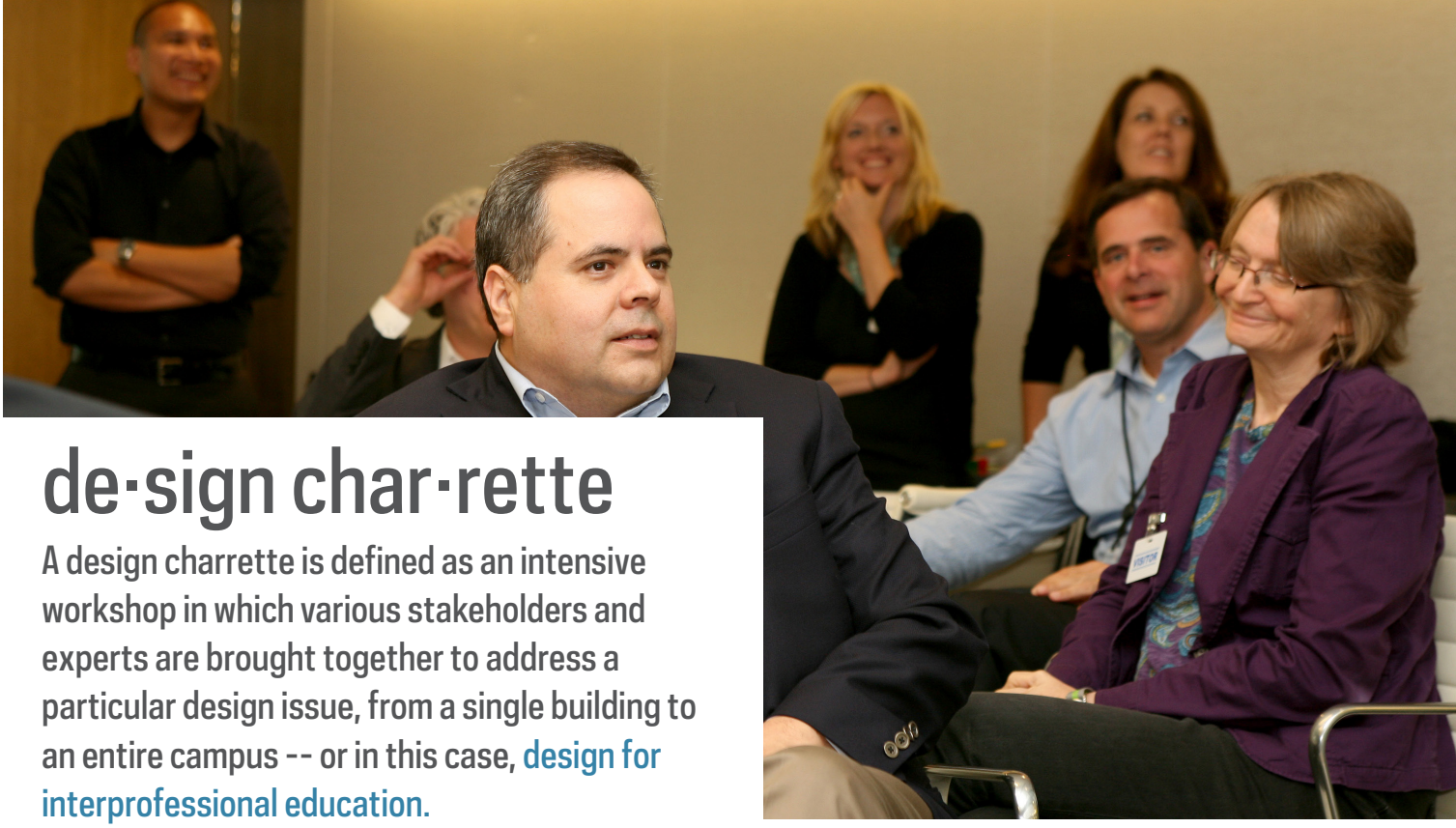
Integrated design is a culture of egoless cooperation and participation that is based on our belief that you get further as a group than you ever will as an individual. It's not just the architect that is leading the effort or designing a project, but we have engineers, interior designers, simulations specialists, planners, and nurse practitioners that all work together. The integrated process that we use makes for a holistic design solution in the end.

Through our experience in designing for healthcare education and practice, we've come to understand the drivers that shape these environments, including the importance that interprofessional education and team-based care plays in creating flexible health workforces. And, as architects, planners and engineers, our focus is on how facility design can support these drivers in education and practice.

To that end, the SmithGroup Learning and Healthcare Practices convened for a one-day charrette focused on designing for Interprofessional Education and team-based care. During the charrette, our team of specialists put their heads together to identify top design trends and explore planning scenarios influencing IPE. These charrettes, while intense, provide the vehicle necessary for diverse groups to reach milestone decisions and push beyond the ordinary.

We look forward to sharing the ideas generated from the charrette with you in the near future. We encourage your active participation, thoughts, feedback, and criticisms as we join together as educators, practitioners and designers to tackle this challenge.

In October 2014, the ideas generated from this IPE discussion in conjuction with the ATBH conference and the findings from an Interprofessional Education Design Charrette (conducted in August 2014) will form the basis for an IPE Design forum to be held October 8th in Washington DC. The forum will aim to uncover planning and design strategies for higher education and healthcare settings. Not only will the forum create



de·sign char·rette

A design charrette is defined as an intensive workshop in which various stakeholders and experts are brought together to address a particular design issue, from a single building to an entire campus -- or in this case, design for interprofessional education.

opportunities to network and learn with your peers, but it will also aim to answer questions like:

> **How do/can the realities of healthcare practice today inform interprofessional education…and how can facilities respond?**
>
> **What are some best practices/lessons learned for planning of IPE environments that can be exported across institutions?**
>
> **How can campus, building, and program-scale (classroom, sim, clinic, informal) space create opportunities for team-based learning and care?**

The half-day forum, held at the American Institute of Architects Headquarters in Washington, DC, will bring together 25+ healthcare practitioners and educators from institutions across the country along with architects, engineers and planners. After the session, SmithGroup will produce a series of findings, lessons learned and design opportunities to help education and foster design for IPE and collaborative practice across academic and healthcare institutions nationwide.

On behalf of SmithGroup, we would like to thank the dedicated health sciences education professionals for their participation and insights in this discussion on the future of interprofessional education.

-- The SmithGroup Team

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