Interprofessional Innovations

Designing for Interprofessional Education in Today’s Allied Health Facilities
In October 2015, SmithGroupJJR assembled a diverse and dynamic group of leadership from institutions nationwide in a forward-looking exchange of ideas about designing for interprofessional education (IPE) in health science facilities. The session was held in conjunction with the Association of Schools of Allied Health Professions (ASAHP) National Conference and focused on learning environments that support innovation in interprofessional education and practice.

As one participant aptly stated, it’s not just about how IPE is being implemented right now, “it’s about what it will look like in five and ten years, and how our institutions get there.” That pointed statement established the framework for the remainder of the session -- looking at how we can design for a future state of IPE that blends the needs of education and practice.

How can we better align education and practice?

Designing for interprofessional education and collaborative practice necessitates building bridges between institutions of higher education and healthcare. A focus on workforce readiness from higher education demands that students leave academia with the skills needed to succeed in the workforce. While an emphasis on lifelong learning from practice demands that healthcare professionals develop competencies that drive leadership excellence and advance clinical quality.

But how do we build this bridge when there seems to be an inevitable gap between the drivers stemming from academia’s focus on teaming and coaching and practice’s emphasis on patient care and the bottom line? The advisors shared some ideas on how we might achieve the goals of both sectors:

**Alignment of Interprofessional Competencies**

The continued development of advanced simulation centers to help foster competency in emerging professionals demonstrates that there is clearly a connection between education and practice. However, if the techniques and approaches that students are experiencing in simulated environments are not being carried over into real-world practice settings, then we have a disconnect.

**Curriculum**

If at the end of the day we are trying to produce the next holistic professional, we must structure curriculum to meet practice goals. Currently there are very few areas in the curriculum that truly allow diverse teams to interface.
Engaging Clinical Partners on Campus

Many times clinical partners are already engaged on campus with teaching appointments, admissions screening and advising opportunities. This could also be an opportunity to include them in a conversation about designing space for IPE on campus.

Concern for the Future of Clinical Training

When clinical training programs provide healthcare systems with a pipeline to great candidates, it is a win-win-win situation for the university, student, and the hospital. However, challenges emerge when hospitals lack sufficient space to support clinical training activities, or when students are not afforded adequate opportunities to collaborate with hospital staff during training. Academia worries that if clinical training programs do not consistently produce strong candidates, then the health systems will start charging to use space or training will need to occur elsewhere.

“How often are clinical partners engaged when talking about the design of new space for health sciences programs on campus? And, what value might their engagement bring in terms of bridging the gap between education and practice?”

- Advisory Board Participant
How can we foster innovation?

Today, higher education places emphasis on students working together to explore, experiment, innovate, create and implement new technologies and ideas that will impact humanity. The curricular focus is becoming increasingly connected to industry, and addressing specific, real-world problems. The exploration of these “problems” is through collaborative, team projects that engage students, faculty and industry partners together in new ways that lead to innovative solutions. For these new interprofessional collaborations to be successful, the right kind of space is needed.

Create Visibility and Partnerships
Facilities must put student-focused activities front and center to create visibility for new collaboration models. They should create places for students to showcase the results of their work together and catalyze the inventiveness of students, faculty, and staff. The facility should be designed to facilitate partnerships with stakeholders inside and outside of academia.

Consider Access and Security
Availability of tools and resources is critical. A building that closes in the early evening may not work for many students, especially the millennial generation who look for more flexibility in study and work schedules. Allowing for access to tools and resources at any time allows for innovation to happen, even in the middle of the night. Security considerations come into play when designing for a 24/7 facility, including accessibility, transparency, and lighting.

“In terms of IPE, I have deliberately not used the term, because the most important part of the IPE experience has to be community members. The term IPE is exclusionary to community involvement. We use the term team-centered.”

- Advisory Board Participant

Connect with the Community
When looking at where innovation happens, in IPE environments it is taking place out in the community – specifically in student-run clinics. These clinics bring in student leadership and autonomy. They also encourage interaction with non-traditional professions.
What types of spaces drive innovation?

Programming and design for innovation requires that the team assembled to achieve this goal possess a unique and balanced composition of capabilities, including: an understanding of learning environments and pedagogies; demonstrated experience creating spaces that inspire investigation, research and discovery; and the power to create teaching opportunities that will enable students and faculty to collaborate both inside and outside of the classroom.

It is important to note that to stimulate collaboration, teaming, and multidisciplinary innovation, increasing amounts of space per student are often allocated to inspire and accommodate those dynamics. This additional space also begins to suggest that higher floor to floor heights are required to accommodate collaborative visual technology.

Spaces to Promote Discovery

Bringing professions together in maker or studio space allows for diverse teams to work toward a common goal on specific projects. This need comes from the desire to have different space types for the full development of products or ideas. The space operates as a “shell” for innovation for different teams to customize as needed. It also provides opportunities for partnering outside of the health professions (with engineering, business, etc.) or with clinical partners to solve problems that impact the community. In addition, the integration of research projects driven by the needs of the local community and industry is also a common trend.

Space to Support Problem-Based Learning

The best classrooms and learning spaces work well for an entire group as well as smaller subsets. Studies show that peer-to-peer, small group learning is critical to fostering engagement and provides a positive impact on learning.

Space to Bring Together Diverse Disciplines

The design of a health sciences facility fosters interprofessional interaction at a variety of levels. Interactive space contains a diverse assembly of elements including white boards, projection screens, vending machines, conference tables and seating, etc. These spaces can function for both planned meetings and impromptu gatherings if they are strategically located at the hub of circulation paths. At a different scale, smaller casual interaction spaces like a common worktable near a copier and coffee machine, or a white board in the middle of a cluster of offices can promote conversations among students and faculty, which may provide the genesis for new ideas.

“We are looking at entrepreneurship efforts on campus – maker spaces, etc. It is about IPE, but in a much broader sense than just health – because it would include other disciplines like business and engineering.”

- Advisory Board Participant
**Space Enhanced by Technology**

Computer projection, electronic white boards, video conferencing and sophisticated sound systems are all tools that can enhance the learning experience and the communication of ideas and concepts. It is critical that audiovisual and computer systems be simple to use and adjust so that the technology does not get in the way of communication. Technology makes information accessible, faculty make it meaningful.

Global connectivity is the expected classroom technology. Multimedia forms the next generation of classroom tools including “multi-sensory learning” which incorporates large amounts of information on media walls with access to multiple internet sources simultaneously. We must anticipate future technologies as we design learning spaces for today.

**Space to Focus on the Patient Care and Competency Development**

Simulation has proven to be an effective teaching method, and one well-suited to interprofessional education. Students can be taught in teams much like those in which they will actually practice. The challenge facing an interprofessional approach to simulation is that different specialties need different types of simulation training. Both high and low fidelity simulation can provide valuable learning experiences if they are properly implemented. In contrast, surgical simulation concentrates on teaching technical skills with multi-million dollar systems, but places less emphasis on contextual learning or team practice. A true interprofessional simulation center must therefore include spaces that can support a wide range of technological requirements. No matter the spaces initially provided, the working assumption in any simulation center design must be that the technology will continue to change, and that spaces must be able to adapt to those changes.

**Space that Enhances the Student Experience**

Today’s students are consumers and seek a variety of amenities and choices within their “market” seamlessly stitched together with their academic programs. From informal learning areas and team rooms strategically located throughout the building to opportunities for socialization around dining or cafes, creating a comprehensive experience outside of the classroom is key.
How can we use faculty office space differently?

In the academic world, learning and classroom environments are typically only a small part of the average campus – less than 5% in some Big Ten institutions, for example. Office space, however, can accommodate up to 25% of real estate on campuses. In many academic institutions, the push for private offices has driven the ratio of office space up across campus. Yet many of the leaders at the roundtable discussion expressed the need for more classroom, simulation and collaboration space.

In working with corporate America and numerous academic institutions across the country, SmithGroupJJR has identified some “lessons learned” when looking at how to evolve faculty office space to place a greater emphasis on collaboration.

**Lesson #1: There is no “one-size-fits-all solution”**
The move to more “open office” has been quite popular for some time. However, while some design trends are popular, they don’t always work for every type of institution. We’re not saying that open environments do not work – they do, and we know this first-hand. However, it isn’t necessarily the right fit for everyone, so institutions should be open to considering an array of possible workplace solutions that best align with their needs.

**Lesson #2: Variety and choice are key design drivers**
Understanding how more innovative workplace concepts can be implemented into faculty space on today’s campuses while still addressing needs for privacy, research, collaboration, security and mentoring/counseling is critical. New design concepts may eliminate enclosed, private faculty offices and, in their place, provide open workstations and increased collaborative space – both for work-related and social interaction. However, these designs give faculty new types of privacy options, including huddle or quiet rooms for private conversations, research and student assessment. Benefits of this “workplace evolution” include increased transparency and collaboration with colleagues, access to abundant natural light, flexible environments to accommodate new technologies, and greater student interaction.
Lesson #3: For a “workplace evolution” to be successful, administration must be committed to helping faculty, staff and students work through the change

Going from a traditional space to a different type of environment is a big change. Failure to carefully and actively manage this transition is one of the biggest culprits of faculty backlash and dissatisfaction. To ensure a successful evolution, users must fully understand the scope of the changes that are to come and how different groups of people will be impacted.

A change management team must be established to educate users about the process and create opportunities for users to engage in open dialogue and express feedback. Change management activities should also explore with faculty, administration and students how personal behavioral shifts can make the change to a new office plan successful. A formalized change management plan can shift the experience from a reactive process to a proactive approach which enables the team to anticipate concerns and potential “hot button” issues and work to make subtle shifts in the culture so that the transition feels like a natural progression versus an overnight change.

Lesson #4: Test with Pilot Programs

In preparation to launch a major faculty workplace transformation, it is beneficial to consider a pilot program. Often there is one department or group within an organization made up of progressive “change agents,” eager and open-minded to try something new. These early adopters become advocates for transformation. Many institutions embarking on a workplace change program will begin with a pilot program at a small location to test workstation layouts and assess collaborative culture. Based on the pilot, a number of valuable adjustments can be made before rolling out the new design across all departments.

In many cases, the drive for change comes from the top, meaning that Dean-level individuals push for workplace innovation within the school. Without leadership buy in, drastic changes in the faculty workplace can be difficult to successfully implement. But, with the right leadership vision and focused design and planning interventions, more flexible faculty workplace models can enhance collaboration between faculty and students.

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Conclusions

Increasingly, leadership in higher education and industry are working closely together to focus on better preparing students to enter the workforce as part of interdisciplinary teams. Success in this setting requires more than a solid grasp of technical skills – it also requires the ability to collaborate across professions to solve specific problems. Health sciences education is ahead of the game in recognizing the need for team-based educational experiences that model real life healthcare delivery. Interprofessional education has also increasingly become an accreditation requirement and has been integrated into curricula.

In order to design facilities that foster IPE, the health professions must embrace a holistic approach to connect each discipline on multiple levels. From curriculum and faculty development, clinical partnerships and competencies, to new environments to support a wide-range of students, each program within a health sciences facility must be carefully evaluated to ensure that it supports IPE goals. It is at these intersections that creativity and innovation will thrive.

A Special Thanks to our Interprofessional Education Advisory Board Participants

On behalf of SmithGroupJJR, 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.

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