

WHAT WORKS - A PKAL CASE STUDY

“MAKING THE CASE” ABOUT THE IMPERATIVE OF NEW SPACES FOR SCIENCE

Becoming an effective advocate for building and sustaining a robust undergraduate learning environment takes an intentional, creative, persistent, and collective effort, whether the focus is on the quality and character of space or program. Through an exploration of this case (and an examination of responses from the PKAL community), adaptable ideas will surface about making the case within your community: about how to build the case and how to identify and influence specific audiences to whom the case should be made. In the arena of facilities planning, experience of the PKAL community suggests this process of building and making the case is the key first step, but also that this is an iterative process, as your case (your vision) becomes more defined and more visionary through the time of planning.

The Case Study

Susan Novak and Dave Heller were flying together to a PKAL Facilities Planning Workshop. This was the first time the University had sent a team to this series of workshops, although their faculty had participated in PKAL workshops on curricular reform. Novak is the provost and Heller, a senior faculty member, is the likely “project shepherd” [although they are not yet familiar with that concept]. Quietly, each were reviewing materials assembled in preparing their workshop application and reflecting on recent discussions with colleagues about the potential science facility project.

Novak believed strengthening the sciences (including but going beyond the facilities project) was a high institutional priority; however she recognized the compelling nature of competing priorities being evaluated by trustees and senior staff in the institutional strategic planning underway. Heller knew his divisional colleagues had no doubt that new spaces for science were highest priority; however he recognized there were differing perspectives about why it should be a priority, and thus about a vision for the future of the sciences on their campus.

They began talking. Novak shared concerns about getting key decision-makers focused on the significance of the science facility project and Heller spoke about conflicts emerging within the science division as space issues were discussed. He reminded Novak about the ill-fated STEM facilities planning efforts of a decade ago (before she came to campus as provost) that had left a residue of distrust, disappointment, and discouragement, particularly with senior faculty in the division. Novak reminded him that she had appointed over 50% of the current STEM faculty during her nine years as provost and that, given anticipated retirements, a significant number of new tenure-track faculty would be appointed in the next five years.

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ISSUES:

- ◆ How to talk with STEM faculty colleagues about why to incorporate spatial flexibility into the new facility in ways that would allow departments to become more closely integrated and teaching and research to be more closely integrated.
- ◆ How to talk with non-STEM faculty colleagues about why an investment in STEM facilities is an opportunity to strengthen learning of undergraduates in all disciplines.
- ◆ How to inform institutional leaders (trustees, senior administrators) about the value of the science facilities project, about its potential to enhance the distinction of the university over the long-term.



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Continuing to talk, each realized that gaining campus support for the science facility project would be an immediate, personal post-workshop responsibility and that they would have to work together toward that end. Novak went through notes from the recent meeting of the Trustee Subcommittee on Infrastructure. The most vocal trustee kept pressing for modest renovations to the current building (named after his father). Another trustee, CEO of the major regional industry, had gently contrasted what 20th century and what 21st century undergraduates needed to know and be able to do as a result of their experiences in STEM classrooms and labs. That exchange had sparked a question from the Vice President for Admissions about how admissions would be affected if new spaces were (or were not) realized.

Heller spoke from his heart about his vision of a facility that would nurture and support a true community of scholars of STEM students and faculty. As chemistry department chair, he has been frustrated with barriers presented by current facilities (different buildings and unforgivingly impersonal corridors that limit easy access to colleagues, etc.) to shaping new research programs that cut across chemistry and mathematics, chemistry and biology, and physics.

Yet he knew the two senior faculty members in the division were adamantly outspoken in their view that interdisciplinary programs were just a fad, and that only faculty settled firmly into their disciplinary community should be nurtured and rewarded. This was becoming an increasingly fractious debate, affecting issues from whether to renovate, add, and/or build anew, if and how to mix disciplines, to how to determine adjacencies of faculty offices, research and teaching labs. Heller knew the most difficult questions to be addressed as the planning process proceeded would be about “who owned what spaces?” and “how to break down the academic silos that reflect their current campus culture?”

Heller had been meeting with the few visible faculty pedagogical pioneers about to use the process of designing new spaces to facilitate a broader shift to new kinds of learning and teaching in STEM fields. Novak chimed in at this point, suggesting how larger institutional goals for student-centered learning could help shape those discussions and then ultimately the new spaces for science on their campus.

The plane lands. ■

The case study assignment:

Please provide advice to Novak and Heller in addressing the issues raised in this case study.

Adapting the “think-pair-share” pedagogical approach, have each person write his/her idea on a 3x5 card (two minutes), then share with table colleagues (ten minutes).

Determine if there is one “aha” idea that your team should expand upon, or if several ideas are similar enough to be combined (twenty minutes).

Be prepared for reporting out to the assembled group to identify *what works* in making this case.