



# V. WHAT ASSUMPTIONS DO WE HAVE ABOUT HOW ROBUST LEARNING HAPPENS, ABOUT HOW SPACES MATTER?

# **INITIAL QUESTIONS**

- A. What do we now know, from auditing pedagogical and programmatic practices within and beyond our community, about the efficacy of such practices? What do we need to know?
- B. What do we now know, from auditing current spaces within and beyond our community, about how spatial affordances influence the experience of learning? What questions should we be asking next?
- C. Has our planning been enriched by engaging colleagues with insights from research and practice about the impact of space on the human experience, in particular the experience of the learner?

# FINAL QUESTIONS

- Is there an explicit connection between the processes of planning and of assessing evident in our discussions and decisions?
- Did we bring a diverse cadre of experienced theorists and practitioners to the planning table? How did they influence our discussions? What is the evidence?
- Have we designed and implemented an evidence-based approach for planning and assessing spaces for learning for use into the future?

## FROM THE LSC ROADMAP

**Process Oriented Guided Inquiry** Learning (POGIL)



Active Learning Classrooms (ALCs)



Problem-based Learning (PBL)



Student-Centered Active Learning Environment With Upside-Down Pedagogies (SCALE-UP)







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### FROM THE LSC ROADMAP: USER

The USER logo is designed as a metaphor for how learners—the primary USERS—will be moving in and through the spaces being planned. For more than two decades, pedagogical pioneers in many disciplinary fields have experimented with and assessed classroom experiences to determine what kind of learning experiences support students—all students—in achieving ambitious learning goals, that studentsall students meet higher goals for student success. In the context of the emerging LSC Research Initiative, we invite your attention to:

- Where is evidence that guided-inquiry the learning cycle of exploration, concept invention, and application—works?
- Where is evidence that active-learning classrooms invite faculty to demand more from students...and to support students in achieving ambitious learning goals?
- Where is evidence that learning that begins with a problem, in spaces designed to combine lecture, lab, and recitation in a unified experience works?
- Where is evidence that students learn better when teachers can combine separate activities like lecture, lab, and recitation into a single, unified learning experience to meet higher standards for student success?

# FROM THE FIELD: WORDS OF WISDOM

Built structures, such as animal nests or buildings that humans occupy, serve two overarching purposes: shelter and a space where individuals interact. The former has dominated much of the discussion in the literature. But, as the study of collective behaviour expands, it is time to elucidate the role of the built environment in shaping collective outcomes. Collective behaviour in social animals emerges from interactions, and collective cognition in humans emerges from communication and coordination. These collective actions have vast economic implications in human societies and critical fitness consequences in animal systems. Despite the obvious influence of space on interactions, because spatial proximity is necessary for an interaction to occur, spatial constraints are rarely considered in studies of collective behaviour or collective cognition.

— Pinter-Wollman N, Penn A, Theraulaz G, Fiore SM. 2018 Interdisciplinary approaches for uncovering the impacts of architecture on collective behaviour. Phil. Trans. R. Soc. B 373: 20170232. http://dx.doi.org/10.1098/rstb.2017.0232



