Function Before Form:
Designing the Ideal Library Classroom

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Introduction

Classroom environments in academic libraries are typically multi-purpose and serve a wide variety of teaching and learning styles, as well as various instruction and training needs. The design of such classrooms must be flexible and functional in order to create an environment that is optimum for successful teaching and learning. Although it is understood that teaching and learning can happen anywhere in libraries, our focus is the intentional design of classroom space for information literacy instruction. While a librarian's teaching style is a key element to the success of IL instruction, the space in which librarians teach can be a vehicle or a road block. At Indiana University-Bloomington, the libraries house many rooms that are used for instructional purposes, but none represents the characteristics of an ideal learning environment.

Library Classroom Design: The Authors' Experience

Realizing this disconnect between teaching styles and teaching space, the IU-Bloomington Libraries convened an Instructional Space Committee in 2007 to review library classrooms and identify needs for improved teaching spaces. The group started this task by gathering information from local sources and experts, as well as through a literature review on the concepts of classroom design and best teaching practices. Finding surprisingly little research or even practical information published about classroom design with which to guide us, we devised our own approach for assessing needs, reviewing current space, and developing a plan for implementation. During the year that the committee gathered information and drafted a report outlining potential strategies for new and improved classrooms,

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we considered the theoretical foundations for good design and how these could be applied to library classrooms.

Throughout the Instructional Space Committee's process for library classroom design, we focused on effective teaching styles and good pedagogical practices before thinking about classroom setup and configuration. Considering function before form is a common practice of architects, as well as instructional designers. When it comes to classrooms, this kind of thinking ensures design strategies that take into account first what you want to be able to accomplish within your teaching space (the function), rather than having the space (the form) itself determine how you teach.

Using this theory as our guiding principle, the committee began its work by gathering information about the teaching spaces currently available in the IU-Bloomington Libraries. An inventory of our classrooms revealed a variety of spaces for instruction, including three computer clusters, two computer classrooms, two seminar rooms, and one large lecture space. These existing classrooms have many benefits, including their accessibility and visibility. However, the many disadvantages of these spaces, including the lack of doors and walls, the lack of lighting controls, and the lack of flexibility, far outweighed the benefits.

Next, the committee conducted a survey to determine the ways in which librarians teach. The results of the survey indicated that librarians engage in teaching, as well as staff training. Of the librarians surveyed, 83% cited hands-on instruction in a computer classroom as one of their preferred methods of delivering instruction. Upon documenting the preferred teaching methods of librarians, we began to wonder how much of this preference was dependent upon the configurations of existing library classrooms. This resulted in a very valuable discussion among members of the Instructional Space Committee regarding how teaching in the IU-Bloomington Libraries might look different if better learning environments were available.

After discussing librarians' preferred teaching strategies in our current environment, we discovered they were quite different than how we would teach if space and technology constraints were not an issue. In keeping with our guiding principle of function before form, we set up an ideal scenario for library instruction in which flexibility, maneuverability, student work space, lines of sight, collaboration, and active learning were all valued. While designing our ideal teaching scenario, the committee did not consider realities such as space, money, technology, or furniture needed to achieve learning outcomes. Instead, we focused on how we wanted students to interact with us, our resources, and each other in order to achieve genuine learning. For example, an ideal instruction session might start with a demonstration or discussion, then progress to group work where students work in pairs or small groups to solve a problem with the instructor circulating among the students to answer questions as needed, and end with students sharing what they learned while the instructor synthesizes the main points of the session.

Using this ideal scenario to guide our discussions, the committee returned to the reality of designing spaces that would achieve this type of teaching and learning in our current environment. Our ideal teaching scenario would require existing classrooms to be equipped with additional wiring, better wireless functionality, lighting and temperature control, enhanced hardware and software, and new furniture. Without the luxury of planning classrooms for a new building, we focused on redesigning or repurposing existing library classrooms. Taking into consideration the realities of our current teaching spaces and the estimated costs for classroom design, the committee learned the art of creative compromise. While the committee had to forgo many of the elements that would have resulted in the perfect classroom, all that dreaming was not a waste of time. In fact, it was absolutely essential to our process, as it ensured that functional requirements remained central to all discussions and decision-making.

The next phase of the committee's information gathering involved interviewing classroom design consultants for the IU-Bloomington campus. In addition, we familiarized ourselves with the written campus guidelines for classroom design and technology requirements. Recommendations from the campus, especially with regard to the integration of technology into classrooms, did not coincide with the committee's philosophy for student learning. The typical approach to designing computer classrooms often situates students in rows facing the front of the room, which we knew would not accommodate any of the elements of our ideal teaching scenario, as this sort of arrangement limits opportunities for peer collaboration and discovery learning. While we were concerned with providing the technology needed to allow for a hands-on experience for every learner, we were unwilling to concede the basic elements of good classroom design to do so.

Finally, we looked for recommendations from the professional literature regarding the design of library classrooms in the digital age. Although many articles recommend that library classrooms be adequately designed, furnished, and technologically equipped in order for library instruction to be practical and meaningful, we found few articles that provided practical advice for how to achieve this ideal. Instead, the library literature justified what the committee already knew to be true: that our learners and their needs should be taken into account during every stage of the design process, and classrooms should be flexible and multifunctional in order to accommodate a variety of learners and teachers, from the behaviorist to the constructivist.

After gathering information, discussing ideal teaching scenarios, and drafting potential classroom floor plans, the Instructional Space Committee prepared to make its recommendations to the IU-Bloomington Libraries administration. Members of the committee pooled their collective knowledge and tried to think beyond traditional concepts of "teaching space" in order to propose an innovative plan for the repurposing of existing teaching spaces and the improvement of current classrooms. Some of the committee's recommendations involved spaces that could be used differently than ever before, while others would enhance current use and practice.

Throughout the process of drafting the report and recommendations, the committee took every opportunity to explain how improved library classrooms would benefit not only the libraries, but the greater campus community. It is important to demonstrate impact when requesting funding and support for any new initiative. With classroom space at a premium on campus, the demand for library classrooms affects not only librarians, but other instructors as well. For example, it is common for non-library instructors to request the use of the libraries' instructional spaces for their own purposes. The IU-Bloomington Libraries have a legacy of providing excellent resources, services, and support to members of the campus community. Part of our commitment to providing these resources involves the technology tools needed to access and use information resources in a comfortable space conducive to learning, creativity, and scholarship. In order to continue this legacy, the Instructional Space Committee recommended that all library classrooms be open for general use when there are no classes scheduled. In addition, we proposed that library classrooms be available to any instructor who is teaching library or research-related concepts and knowledge.

The committee's final report has resulted in increased awareness about the need for desirable teaching spaces in the IU-Bloomington Libraries. Conversations have begun among librarians and administrators about the possibility of implementing the recommendations of the committee. When the time comes to communicate the practical needs and realities of library instruction spaces to stakeholders, architects, and the campus community, the libraries will be ready with design plans from the experts: librarians.

LIBRARIANS AS CLASSROOM DESIGN EXPERTS

In order to embrace the role of design expert, a certain amount of self-awareness is necessary for librarians. As experts, we must realize that our knowledge of how to successfully teach the research and information-seeking process exceeds that of any design professional. Thus, we are best equipped to design the learning spaces that will accommodate this type of teaching. For our purposes, we found a group approach to be very beneficial, in that it allowed us to have the input of librarians with a variety of teaching styles and pedagogical perspectives. In addition, a certain amount of discussion was necessary to determine which ideal design elements we were willing to compromise for the purpose of achieving realistic goals.

LESSONS LEARNED

In satisfying the task of planning new and improved library classrooms, the Instructional Space Committee at IU-Bloomington learned a lot about the design process. The first lesson we learned is that design and renovation come at high costs. In addition, a great deal of time and energy is required to document and justify the funding necessary to create an ideal library classroom. Another difficult aspect in designing library classrooms involves the necessary agreements that must be made between partners regarding software, hardware, and policies for classroom use. Finally, existing construction can be a barrier for successful design, as it requires working around weight-bearing columns, high ceilings, as well as HVAC systems and wiring that may be inadequate. The potential impact of functional teaching spaces, however, far outweighs the challenges to their creation. It is our hope that librarians undertaking this challenge will embrace their role as design experts in the process in order to ensure the successful creation or renovation of library teaching spaces.

SHARING & COLLABORATING FOR BEST PRACTICES

During our presentation at the LOEX 36th National Conference, we shared our experiences and the knowledge we gained in designing our ideal classrooms in order to assist others who are faced with a similar task. To achieve this, our presentation included an interactive breakout session during which groups of attendees worked together to design space for various types of teaching models. Participants were given "kits" to build the space using graph paper and pre-cut shapes. The results of this interactive session, in addition to other relevant resources such as photographs, readings, and more, are available at www.libraryteachingspace.org. We hope this web site will continue to serve as a forum for discussion and information sharing about library classrooms for those who seek practical examples and advice from fellow practitioners.